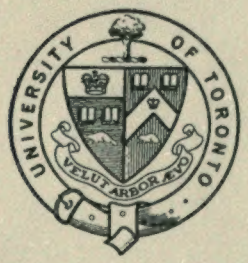

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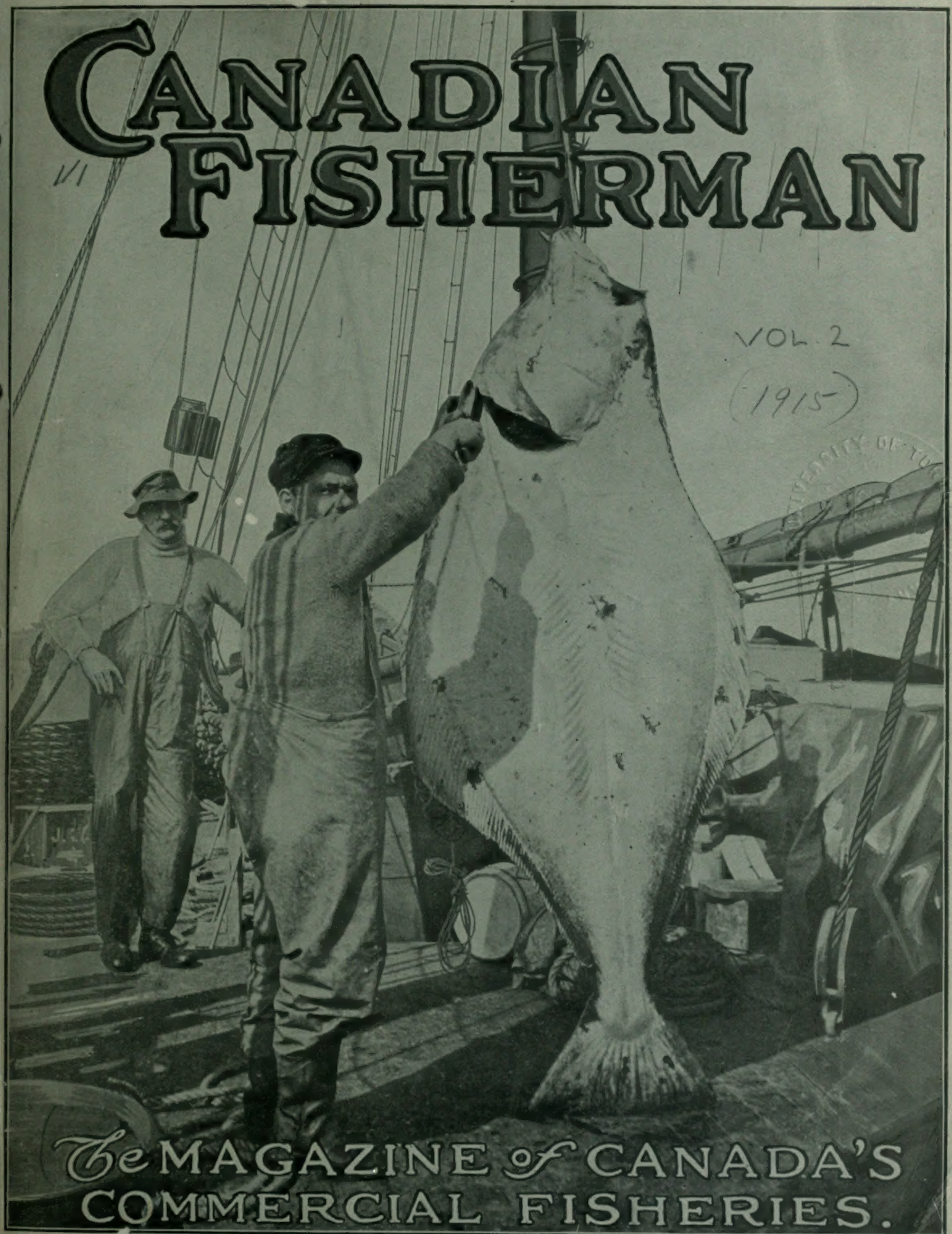
Vol. II. MONTREAL, JANUARY, 1915 - DEC. 1915 No. 1

CANADIAN FISHERMAN



VOL. 2 (1915)

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THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA, THE SCIENCE OF THE FISH CULTURE AND THE USE AND - VALUE OF FISH PRODUCTS -

F. WILLIAM WALLACE
EDITOR

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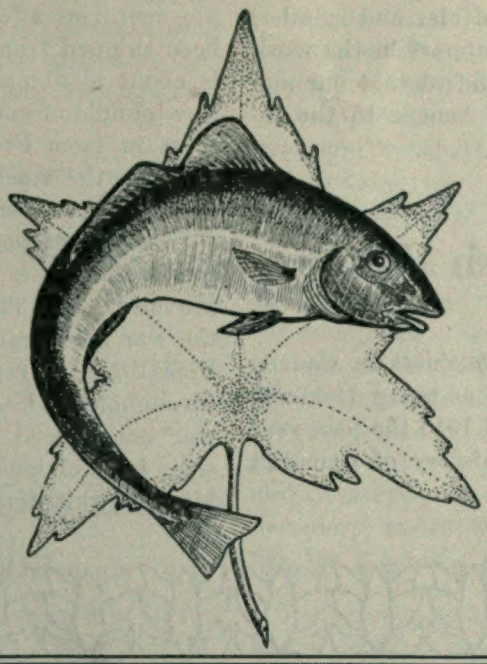

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Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest. If suitable for publication these will be paid for at our regular rates.

Vol. II. MONTREAL, JANUARY, 1915 No. 1

Ourselves

The CANADIAN FISHERMAN has completed one year of its existence and the present issue is the first of a new volume. Of course we feel rather pleased at being able to celebrate a birthday and better pleased to feel that we are justifying our existence.

When we started in a year ago, we felt that we were tackling a hard proposition, but we had sufficient confidence in ourselves and the future of the Canadian Fishing Industry to believe that our future would progress with the industry. Until we established our journal, the vast fisheries and fish trade of Canada had no paper or magazine devoted to their interests.

During the past year we have made many sincere friends and retained the goodwill of those who were kind enough to encourage us in the venture of promoting this magazine. Many of the firms and persons engaged in the business were rather diffident at first and seemed to think that we would run for a few issues and then vanish. We have shown them that we mean to stay and they have been good enough to recognize this and to give us their support. We sincerely trust we shall retain their friendship.

The editorial policy of the magazine has been consistently kept. We have striven to educate and to make an earnest endeavor to bring the fish business in Canada to a higher plane. We have avoided controversy and "knocking" and the keynote of our editorials and articles is to "boost" the fisheries and the fish trade. We have been friend to fisherman, wholesaler and retailer alike, and avoided partiality to either one or the other.

Our subscription list shows a large number of readers among the fishermen all over Canada. We are more than glad to see this as it shows an intelligent appreciation of our efforts to make our journal interesting to all. Copies of the CANADIAN FISHERMAN will be found in the cabins and forecastles of offshore trawlers from Grand Bank to Georges; in the homes of fishermen all over Canada and Newfoundland; the lonely Magdalen Islands, Anticosti and Grand Manan, and in most of the isolated fishing villages of the Atlantic Coast there are one or two who take the magazine and pass it around to their neighbors after reading. The Great Lakes and the Pacific Coast form a good proportion of the list and practically every up-to-date concern engaged in Canada's Fishing Industry receives the CANADIAN FISHERMAN each month.

In addition to our circulation in Canada and Newfoundland, our journal goes to many subscribers in Great Britain, the United States, West Indies, South America and Europe—a cosmopolitan circulation, which cannot help but be a benefit to the industry in general.

In concluding this talk about ourselves, we beg to reiterate our inaugural request. This is the fisherman's and the fish trade's journal. We wish you to make full use of our columns for the expression of your opinions on fishery matters. We like to have your advice as to how we may help the business and improve the magazine. The Editorial Staff is at the service of our readers and we feel a pleasure in answering enquiries and procuring information and a still greater pleasure when you take enough interest in our

welfare to criticise and advise. We know that we are far from perfect, but we are willing to do our best and more than our best in getting out a journal which will be of real value to fisherman, dealer and retailer. Make use of us and give us your support in the work we are doing and we shall feel confident that our magazine is appreciated, and of real benefit to the industry in general.

The Canadian Fish Trade for 1914

The general review of the fish business in Canada during the year may be summed up as being decidedly good. If the war had kept off until 1915 the past year would have been the best in the history of Canada's fisheries for general development.

Statistics do not always give an indication of the prosperity of an industry. In the fishing industry there are a number of things which are subject to fluctuations and such do not indicate the real state of affairs. The salmon fisheries of British Columbia are greater during the four year "run" and the statistics rise accordingly: the lobster fishery may make poor returns after a season of bad weather and in other branches of fishing the weather and the abundance or scarcity of the fish have a great effect upon the yearly returns.

The outbreak of war had a disastrous effect upon the canned lobster and the dried fish trade but conditions are adjusting themselves and stocks are being got rid of at a fair price. The state of affairs in Europe have paralysed their fisheries and prospects are good for the exportation of fish from Canada to the countries affected. Prepared codfish has been been shipped from Nova Scotia to Scotland: Portugal is about to abolish the tariff on dried salt fish from Newfoundland and Canada, and several enquiries have come in from France for sardines and other fish to keep up the stock which they prepare themselves or import from Great Britain and Scandinavia.

In so far as the consumption of fresh and prepared fish in Canada is concerned, the year 1914 has proved the best yet. The demand is growing monthly and the war has stimulated it. Enquiries by CANADIAN FISHERMAN representatives from various dealers throughout the country elicit the fact that since the war commenced they have done a good business—some have claimed it as the best they have ever done. Much of this demand may be that the public are beginning to realize that fish is cheaper than meat during these strenuous times, when expenses have to be cut down. Another reason is the publicity which has been given the fisheries of late. The Exhibition of Fish and Fish Foods at Toronto last summer and the distribution of the Fish Cook Book issued under Government auspices has helped greatly, while the Department at Ottawa has been doing good work in newspaper publicity calling attention to fish as a food. We, ourselves, modestly claim a little share in the good work. Our editorials and special articles have been largely reprinted in newspapers and periodicals throughout the country and it has all helped in boosting fish as a food.

The Publishers, Editor and Staff of "The Canadian Fisherman" desire to extend to all its readers and many friends throughout the world, the very best wishes and prosperity for the year 1915.

Another fact is the aggressive manner in which many of the fish dealers are pushing the sale of fish to retailers. Several large meat and provision concerns have opened fish departments in connection with their stores and in addition to their ordinary customers they have made a bid for the hotel and restaurant trade in their locality.

Prospects for the export trade are a little uncertain at present, but no doubt they will look up in the near future. The home trade is in good shape and we are optimistic and sanguine enough to believe that 1915 will be a most prosperous year. It is up to everybody in the industry to make it so.

The Fisherman, the Distributor and the Retailer

It is a peculiar fact that persons engaged in different branches of a particular industry know very little about each other. The farmer who grows the grain knows nothing of the work of the miller who grinds it into flour and of the man who sells the flour to the consumer. An apple grower sells apples to a dealer at say one dollar a barrel. He picks up a paper and notices that a fruit merchant is selling his apples at four dollars. Mr. Apple Grower feels that he has been buncoed out of at least a dollar, and considers that he got the raw end of the deal, while some other fellow got the profit.

We all know that the fisherman deserves more than what he gets. He has to risk his life and undergo all kinds of hardships in the business of catching fish, but he is making a mistake when he supposes the distributor and retailer are grabbing all the profit. If they could get more than 8 cents a pound for their fish, they would do so, but the fish eating public absolutely refuses to pay more. It is the public who set the prices—not the retailer. The housewife who comes into a store to buy fresh fish doesn't care a row of pins for the fisherman, and to tell her that rough weather had caused a scarcity of fish and a rise in price makes her think that it is a scheme on the part of the storekeeper to get more profit. The result is she buys something else.

Fish is not a staple like meat and eggs. People will buy meat and eggs at almost any price, but they will not buy fish. The retailer simply has to keep his fish prices low enough to tempt the public to purchase. Fish cannot be kept indefinitely. It must be sold within a certain time or it will be worthless. Cold storage helps the distributor and the retailer out to a certain extent but cold storages cost money to run and in the fish business cold storage is absolutely necessary to maintain a steady supply during bad weather and to take care of an overstock of fish, for which there is no market.

Coming back to the fisherman's price of 2 cents and the retailer's price of 8 cents, let us analyse what amount of labor is put upon the fish by the hands it passes through. The fisherman pays for his bait and gear and his share in boat or vessel. He dresses the fish and receives 2 cents per pound for it on the dock of the distributor.

The distributor has to keep up a wharf and fish sheds; he has to pay for labor in packing the fish for shipment, also for ice, boxes and barrels and cartage to the shipping point. In addition he has to maintain a sales office or a commission agency to sell the fish to the retailer. That means expenses for office rent, the employment of a traveller to get orders and numerous other small items which are absolutely necessary to do business. The distributor sells the fish for 4 cents a pound to the retailer.

The retailer probably pays express charge of 1½c. a pound which brings the cost of the fish to him up to 5½ cents. He sells at 8 cents to the public, making an apparently clear profit of 2½ cents a pound. It looks that way, but does he? In the cities, store rents are very high, and taxes for heat and light are pretty heavy. The retailer also has to keep delivery waggons, and fish is an article which is largely delivered—in fact but a very small proportion of fish orders are carried away by the purchasers. The delivery is an expensive item. Stabling and horse feed is very dear but no fish merchant could do business without a horse and waggon. If fish were in great demand and a team kept busy all day delivering orders the expenses would not be so great, but where fish is only used on fast days and but little at other times it comes high. As an instance of the expense of a delivery a prominent retailer relates the following:—

"A lady living in the North End of this city telephones down for two pounds of fresh haddock to be delivered that day. I had to send my team out to her place to deliver that haddock and the driver was nearly two hours getting out there and back. If you hired a team to take yourself out there and back it would have cost you two or three dollars. Where does my profit come in? If people would come and get their fish, instead of me having to deliver it, or the demand was doubled, I could sell it cheaper and make more profit."

We have not enumerated everything in what has been written above, but what we have pointed out will show that there is no fancy profits to be made in the fish business by any of the three sections who handle the fish. The public, in the case of fish, practically dictates the price, and until such time as there is a steady and heavy demand no person is going to make a rapid fortune out of a fish business.

Advertising in the Fish Business

Every business needs to advertise—even such popular necessities as bread and whiskey have to be extensively advertised even when the demand is great. If anything needs advertising, it is fish.

Fish, in the popular imagination, is regarded as a sloppy, smelly article and only a very few people really appreciate it as a food. Others eat it as a fast day alternative to eggs and meat.

There has recently died in Gloucester, Mass., a man who was a believer in advertising in the fish business. This was Mr. Nathaniel L. Gorton, treasurer of the famous Gorton-Pew Fisheries Company—one of the largest concerns in the United States. Mr. Gorton realized that in order to sell fish it had to be put up in first class style and heavily advertised.

He tackled the boneless codfish and made the brands of his company famous. He insisted on having the product put up in a clean factory and packed in neat packages. Under his auspices well lithographed and artistic labels were placed upon the packages and expensive show-cards distributed to the retailers for the purpose of window and shelf display. In newspapers, magazines and trade journals the product was extensively advertised and the attention of the consuming public was called to the company's goods.

It cost a lot of money but it paid in the long run. Fish, put up in such an attractive form, appealed to the public and the article became in great demand. They read about the product in the advertising columns of the papers and magazines; they saw it in the stores put up in attractive packages and they purchased.

It is absolutely useless to advertise an article unless it is well put up. All the advertising in the world will not help the sale of a badly prepared product, but advertising will help the sale of a good article immensely.

Canadian packers and curers of various fish products should see that their goods are of the best quality and put up cleanly. The package should be strong and neat and the labels artistically designed and well printed. A cheap label looks cheap and gives the public the impression that the goods are of inferior quality. It pays to get the best labels a printer can turn out, for not only does it attract the public, but it gives the retailer a chance to make a good window and shelf display.

Display cards and posters should be designed by a good artist and well printed. It has got to be good to arrest the attention of a possible purchaser and it is better to spend more money in getting out a first-class display card or poster than to spend but a little on something which nobody will look at. In the first instance your money will bring results while the latter case means money thrown away. The storekeeper will hang up a good looking poster but he will use a cheap print for wrapping paper or something else.

With good quality products, neat packages and labels, you have something to advertise to the public. Advertise in the mediums which will reach the greatest number even if the cost is high. If the goods are all that is claimed for them, the purchaser will not be disappointed when he buys and he cannot say that the advertisement was a lie.

The fish merchant who enters an advertising campaign should be prepared to stick to it. It is useless to make a big splash for a short time and then knock off and await results. The results may not come and the advertiser will get disgusted, consider his money wasted, and refuse to advertise again. Advertising to be successful, has to be carried on continuously and carefully. Keep before the public all the time and do not be afraid to spend.

A successful manufacturer, who is a millionaire today, was once asked how he built up his great business. He replied: "By advertising. I had a good article. I improved it to the limit and when I could not improve the goods I improved the package and advertised. I advertised everywhere and every dollar I made I did more advertising. I kept this up for years, putting the best part of my profits into advertising until the goods became so well known that they were in demand everywhere. I kept up the advertising more than ever and incidentally kept competitors out of the field."

Advertising is not a case of throwing out a smelt to catch a whale. No advertising is cheap and cheap advertising is dear at any price and will never bring results. If you have a good product which you know is good, advertise it to the limit and keep on advertising. The results will come.

The Motor Engine in Fishing Craft

This is a pet subject of ours, and we are always hammering at it. We believe that the future of our Canadian fishing industry lies in employing up-to-date methods in fishing. This is an age of speed and in the fresh fish business sail is out of date, except as an auxiliary to make use of when the wind is fair.

In conversation with a Swedish gentleman who had a thorough knowledge of fishery conditions in Sweden, he informed us that the Swedish fisheries were revolutionized when the motor engine came in. Previous to the general use of the motor, the Swedish fisherman fished in sail boats in-shore and off the coast. They had to take whatever fish happened to be in the locality; they set their gear wherever wind and oar would take them. It was largely "pot-luck" fishing depending on wind and weather.

When the internal combustion motor came into use, the fishermen were the first to realize its advantages. They raised the money in various ways even to putting their last penny into the purchase of an engine. Every man who owned a boat put an engine into her and the results were beyond expectations. The fishing areas were broadened. The fishermen went further offshore. They followed the fish and made more trips and incidentally more money in the course of a season. The Swedish fisheries developed immensely and to-day there is hardly a sail boat to be found fishing out of a port in Sweden. What happened in Sweden also holds good in Norway and Denmark—the fisheries of both countries being in a flourishing condition.

In England the motor is coming into general use and the various Fishermen's Associations and Co-operative Societies are assisting their members to install motors in their boats. At a meeting of the Sea Fisheries Authorities held last June in London, one of the speakers remarked as follows:—

"I should like to point out a few of the advantages which would occur if we could instal motors in some of the fishing boats on that coast.

"I might say there are at Hastings three boats that have had motors placed in them during the last two months, and the advantages that have occurred during those two months have gone far beyond anyone's expectations.

"I should like to point out that the mackerel season there begins about the 1st May and lasts until the end of July; that is about three months. I do not think I am wrong in saying that during one-third of that time there is not enough wind on the south coast for these mackerel boats to proceed with their mackerel fishing.

As gentlemen here are aware, it is useless during the summer months, with drift nets, to put the nets out in a calm. They would not get enough to pay for one ship passing over them. One of these boats that have had the motor installed has got his trawl gear in with his mackerel nets, and I thing I am right in saying that during the first six weeks he has used this trawl, and he has only done it at spare time, each man has got a £1 per week share. That is not including what he has got with the drift nets. He really would not have earned that £1 per share per week if it had not been for his motor. He has paid all expenses out of the money he has earned in trawling, for fuel, and a percentage on the motor as well. In several cases during these last six weeks, the sail boats have been becalmed with very few fish; the motor boats have brought the fish to the markets from the other boats, and they have been paid for bringing them to market, and they are bound to get the best price. As you know, with regard to mackerel, they want getting rid of almost as soon as they are caught. If they lie about the boat a few hours they are not worth selling. I might give you another instance as to the usefulness of the motor.

"Six weeks ago three boats left Brighton to go to Lowestoft to fish. Two of these boats did not have a motor, and one had. The one that had a motor got there and earned £100 before the other two got there."

Piscatorial Paragraphs

The Fishing Gazette remarks editorially that the lobster canning controversy in the Maritime Provinces will end when the war ends. That's true enough but what is worrying us is when will the war end?

* * *

Mr. Lewis Connors of Black's Harbor, N.B., stated recently: "Sardine canners in New Brunswick have been getting considerable orders from the English and French Governments this season, and we expect to get more orders from these quarters as the New Brunswick pack of sardines is acknowledged to be excellent."

* * *

The Hospital Ship for off-shore fishermen has at last been established by the United States Government. The Revenue cutter Androscoggin has left to cruise among the haddocking fleet off the Cape Shore and will follow the fleets to Quero and Grand Bank as the seasons come on. The Androscoggin is a fine craft and has been specially fitted up with hospital accommodation. Her work will be largely beneficial to men suffering from minor injuries and diseases. A really sick man would have to be sent ashore. The work is highly commendable and we heartily endorse it.

FREEZING FISH IN BRINE AS SOON AS CAUGHT.

Freezing fish in brine has been recently demonstrated by Dr. J. H. Hjort, of Norway.

Dr. Hjort used a barrel filled with brine and ice and in this placed fish, quite large ones. These he kept in the brine anywhere from twenty to forty minutes. When removed they were frozen through to the bone. The brine must be fifteen degrees below freezing to cause such quick action on the fish. Under the present method of freezing fish by air it would take fully three times as long to freeze the same fish and then the fish would not be so delicious when cooked. The feature of the new method, Dr. Hjort pointed out, was that the fish retained its natural color and taste. This is not so when frozen by air. Another very important feature of the new method was that it was much quicker as, for instance a large cod could be frozen in an hour, herring in fifteen minutes and a haddock in three-quarters of an hour. Under the method now in vogue about three hours would be required to properly freeze a large codfish.

The fish were first dipped in fresh water and just as soon placed in the tank of brine, if it was at the proper temperature, would begin to freeze immediately, the action of the brine on the fish caused the skin to harden right away.

A word to the unwise is wasted.
When in doubt button your lip.
Even a tailor cannot always cut out his rivals.

THE DOG-FISH AND HOW IT IS MADE INTO FERTILIZER

By L. H. MARTELL, B.A., B.C.L.
Barrister-at-Law.

It is said that of all the inhabitants of the deep, those of the shark kind are the fiercest and most voracious. The smallest of this tribe is not less dreaded by greater fish than many that to appearance seem more powerful; nor do any of them seem fearful of attacking objects or animals far above their size. Fish of the shark kind have a body which grows less towards the tail. They have a rough skin and a mouth placed far beneath the end of the nose, five apertures on the sides of the neck for breathing, and the upper end of the tail longer than the lower. This class comprises, among others, the Great White Shark, the Cat-fish, the Blue-shark and the Dog-fish. These are all of the same nature and differ more in size than in figure or conformation. It is with the Dog-fish that we are concerned in this article.

The Dog-fish is an inhabitant of most seas, and usually ranges from two-and-one-half to five feet in length. The body is a very dark greyish brown and sometimes almost black along the back, while the ventral portion is a greyish white. The body is a little compressed at each end. The head is small and the snout short; the eyes are oblong; and the pupil is of a sea-green color; the iris of the eye is white; the mouth is oblong and wide, armed with rows of sharp teeth; the vent is placed before the middle of the body; the tail is long and narrow. Its chief food is the other fishes of the sea which it may have power to catch and overcome.

The Dog-fish has been called "the pest of the deep sea fisheries," and the appellation is well deserved, for he is the greatest nuisance with which the line and net fishermen have to contend in the pursuit of their calling. Inclement weather is often a cause of loss to both the line and net fisherman; no bait is sometimes given as a reason for the fisherman not going in pursuit of his calling; but the chief answer usually received to an inquiry made of a fisherman as to why he is not fishing at certain times of the year, when the weather is good, and bait and marketable fish are plenty, is "the dog-fish are eating up the grounds." Is there a person who has seen any great extent of deep sea net or line fishing, who has not had the experience of seeing nets when hauled, full of mighty holes and containing many herring and mackerel with large pieces bitten out of them, and here and there a dog-fish rolled up in the twine.

Dog-fish could be seen swimming to and fro, and tearing from the nets as it was being hauled, the fish which were gilled, and devouring them, thus compelling the fisherman in order to save his nets, not to let it down with the expectation of securing a draught of the desired herring and mackerel, but to take it ashore so as to save it for some future fishing. Moreover, every fisherman has had the exasperating experience of having come to some bank or shoal where cod, haddock, hake or polluck were plenty, but before making a day's catch been driven from the ground or shoal by the presence of dog-fish.

Dogfish Reduction Works, Canso, N. S.

In order to overcome the dog-fish nuisance many and varied methods or schemes have from time to time been suggested. Some have advocated and still advocate that the only effective way in which the difficulty can be overcome, is by the government granting a bounty to the fishermen for every dog-fish which he can destroy, thus making the business of destroying dog-fish a profitable one for the toiler of the sea. But this would be a very expensive process, and it is not likely that the government will ever see eye to eye with the advocates of this scheme. However, the

government has not always been unmindful of the hindrance that dog-fish are to the successful prosecution of the deek sea fisheries, and some years ago it adopted the policy of the establishment of work along the shores of the Maritime provinces with a view to the reduction of dog-fish into fertilizer. This policy is not now being vigorously prosecuted and only three plants have so far been established.

In 1905 Reduction plants were built at Canso in the Province of Nova Scotia, and at Shippegan in the Province of New Brunswick. These works were operated for the first time during that year. In 1908 the erection of a plant was begun at Clark's Harbor in the County of Shelburne. These works were first operated in the summer of 1909.

The Clarke's Harbor plant is situated on a small island known as "Mud Island," which was placed by the Government of Nova Scotia at the disposal of the Department of Marine and Fisheries, for the purpose of erecting thereon a Dog-fish Reduction Plant. The Clarke's Harbor works are the most complete of the three, for advantage was taken of the experience gained in the operation of the Canso and Shippegan plants,

Dogfish Reduction Works at Clark's Harbour, N.S.

and an improved Press and Cooker were installed in the Clarke's Harbor establishment when it was constructed. The machinery installed in all these plants was manufactured by the American Process Company of New York, U.S.A.

Method of Manufacturing the Fertilizer.

The method is known as "A Continuous Process." In this process a Cooker or Digester, Continuous Screw Press, and direct Heat Dryer, are employed. The Dogfish are first washed and then placed in the Cooker.

The Cooker.

The Cooker consists chiefly of a long, horizontal, stationary, steel cylinder provided with intake and discharge openings, man-holes, etc. Through the axis of the cylinder and supported in bearings attached to the heads of the same, passes a hollow steel shaft, carrying a special conveyor which, by its rotation moves the material continuously through the Cooker. The major portion of this conveyor is made up of radial arms arranged around the circumference of the shaft in the form of a spiral which serve to thoroughly toss about and disintegrate the material, beside advancing it slowly through the cylinder. The central hollow shaft within the length of the cylinder is perforated between the turns of the spiral and provided at each end with a stuffing box and steam connection. As the shaft rotates the steam blows out through these perforations into the material at numerous points, this cooking the material thoroughly and evenly. The hollow shaft is rotated slowly by means of spur gears, sprocket wheels, or other suitable mechanism. From the Cooker the material is delivered to the Continuous Screw Press, direct.

The Continuous Screw Press.

Though the material has been washed to remove foreign matter or digested with steam to liberate the grease and oil which it contains, much of the liquid remains even after a thorough draining. This liquid is separated from the solid portion for subsequent treatment by the use of the press. A constant feed of the wet material is supplied to the machine at the intake end and is automatically discharged, thoroughly pressed, at the other end, while the expelled liquid drains off to a suitable tank.

The central hollow shaft of the press carries a tapered pressing screw mounted on it, which rotates inside of a heavy, close-fitting, slatted steel curb or casing. An adjustable cone on the hollow shaft, but rotating with it, is located at the discharge end of the curb. The setting of this cone controls the opening through which the pressed material is discharged and this regulates the pressure exerted on the material in the machine.

The hollow screw shaft, within the length of the slatted curb, is provided with special conical perforations which, together with suitable stuffing boxes and steam connections at the end of the press, permit the introduction of steam into the material while it is being pressed. The steam not only thoroughly heats the material, but also keeps it soft, thus permitting a more perfect separation of the liquids from the solid portions and enabling a larger extraction to be obtained.

The main shaft, carrying the pressing screw, is slowly rotated within the curb by the heavy worm gearing, while the thrusts from both the screw and worm are taken up by the carefully designed bearings and thrust collars.

Power for operating the press is applied to the worm shaft through a chain and sprocket drive.

From the Press the material is carried by means of a conveyor to the Dryer. The process is thoroughly automatic and very little labor is required save that of superintendance.

The Dryer.

The Dryer consists of a revolving steel cylinder, into which the wet material is fed, having two heavy tires or bearing rings secured to same and supported upon substantial carrying rollers. Inside the drying cylinder and rotating with the same, is located a series of parallel steam tubes arranged in the form of a ring, leaving a central open space. These tubes communicate directly with a cylindrical drum at one end of the machine through which the steam for drying is admitted to the tubes, and the condensation water removed from same by a suitable steam trap.

The inner circumference of the drying cylinder is provided with numerous radial shelves running the entire length of the cylinder, which serve to shower the wet material over the heated steam tubes and also to aid in moving the dried material toward the discharge end, where it leaves the machine through suitable openings in the steel shell. The water vapor, liberated from the wet material during its passage through the dryer, is drawn off by a large vapor flue placed at the feed end of the machine.

Fish Offal Used.

In addition to Dog-fish the offal of food fishes is also made use of at the Reduction works for the purpose of making fertilizer or "fish scrap" as it is commonly called.

Amount of Raw Material Required to Produce a Ton of Scrap.

As a general thing, about eight tons of raw material are required to produce one ton of scrap. There is some variation either way, depending on the freshness, etc., of the raw material. One ton of raw material produces on an average, about eight gallons of oil. There is, however, also some variation in the amount of oil produced, which likewise depends on the degree of freshness of the raw material. The fishermen are paid $4.00 per ton for dog-fish, and $2.00 per ton for offal.

During the past few years, fish scrap has been comparatively cheap. The farmers have been given the first offer to buy the scrap, and it has recently been sold to them at $20.00 per ton f.o.b. Reduction Works. When sold on a commercial basis, it is not sold by the ton, but on an analytical basis. The Department has received prices when it has been sold in such a way, bearing from $30.00 to nearly $40.00 per ton. As the scrap is rich in nitrogen, it brings a comparatively high price. For instance, in 1913, an analysis of the scrap showed it to contain,—

Moisture, 3.87
Nitrogen, 10.80
Phosphoric acid, 3.90

The total amount of oil produced at Clarke's Harbor and Canso, the only two works that have been operating in recent years, last year was 18,752 gallons.

The cost to the government of maintaining the works during the fiscal year which ended on the 31st of March Last, was for Canso, $19,449.51, and for Clarke's Harbor $11,120.78. These amounts include cost of necessary repairs.

Many assert that the operation of the Dog-fish reduction plants has not been a commercial success. To this the reply is made that the Department of Marine and Fisheries when it established the works simply had in view the destruction of the Dog-fish in order to help the fishermen, and to demonstrate to the public that the reduction of Dog-fish and fish offal into commercial products is commercially feasible and beyond a doubt such has been done. It is therefore to be desired that if the government of the country will not undertake to carry on a policy of expansion in the matter of establishing more plants, that private capital should be induced to come in and take up the business, and thus help make for the fisherman a profitable industry out of what is now a great hindrance to the successful pursuit of his calling.

AID TO HERRING FISHERY.

Adoption of Norwegian Methods May Prove Beneficial.

As the result of a conference which took place on December 7 between the Biological Board of Canada and Dr. Hjort, the noted Norwegian fishery expert, the Canadian herring fishery may be revolutionized. At present this branch of the fisheries is in a rather poor way, the catch being of no great consequence, the fish poor and the packing much open to criticism. Much the same state of affairs existed in Norway a few years ago, until under the direction of Dr. Hjort, the inshore fisheries were abandoned, the fishing fleets going out a hundred miles, where they caught more and better fish.

Dr. Hjort came to Canada at the invitation of the Biological Board, and has been conducting an investigation in the Maritime Provinces with a view to determining to what extent the new Norwegain method is applicable to Canada. His investigation may lead to the adoption in Canada of the system which has produced a tenfold increase in the value of the Norwegian fisheries. The proposal is of exceptional importance just now from the standpoint of Canadian fishermen, who have lost their market in Germany through the war and their markets in South America and elsewhere by reason of the financial depression. At the same time, the war has practically stopped the herring fishing in the North Sea, and to some extent in the Baltic, so that there is likely to be a heavy increase next year in the demand for Canadian fish.

MAN-EATING SHARK.

A great many persons are of the belief that sharks, no matter what their size or species may be, do not kill or even attack human beings; some authorities declare the man-eater will only attack the human form when it is motionless; others that it will not touch a human in the nude, only those that are dressed. A friend of mine residing at Pensacola, Fla., resents all these declarations, and affirms that the shark of twelve feet or more will attack man or woman under all conditions—the body being still or in motion, nude or fully dressed. He writes me: — "Hundreds of human beings are killed and eaten annually by sharks. I personally witnesed the killing of one man by a shark, and aided in killing the shark. The body of the man—that of Thomas Ashe, pilot of the schooner Wallace A. McDonald, sailing in Florida waters—was cut completely in two and sank in fifty feet of water. After biting its victim the shark was about to devour the parts of the body when a well-directed harpoon ended its career. The shark may not molest human beings swimming in shallow water or attack surf bathers, but it is certain that the species will attack man in deep water."—Chas. Bradford, in Outdoor Life.

MY FIRST MACKERAL HOOKING TRIP TO NORTH BAY IN 1848

By CAPT. SYLVANUS SMITH
("Gloucester Times.")

(This article, by a famous Gloucester skipper, will be of special interest to Canadians—illustrating as it does Gulf fisheries in the early days.)

In 1848 there were several vessels fitting for North Bay "hooking" trip and one, a new craft named the "Juanita," had been chartered by Joshua Pool, the captain. I had been "shore fishing," but was looking for a chance to go to the "Bay," and so applied to the captain for a berth.

Their complement was full, however, except a cook, and he offered me that place if I cared to go, with an extra ten dollars as an inducement, the boys, of which there were three, should do most of the work. The boys received eight dollars a month, being hired for the trip. All of the crew, mostly young men, came from Rockport, and after a lapse of sixty-seven years, their names and faces come back to me as clearly as though it were but yesterday.

The members of that crew were Joshua Pool, captain; Lemuel Clark, who had commanded many craft, sailing from Cape Ann, Moses Hoyt, George Pool, John Derbin, Warren Knights, N. Roberts, George J. Tarr and myself. The boys were Lane, Keen and Gee.

We sailed for Boston, where we loaded barrels, salt, etc., for the trip, also obtaining stores which were of the cheapest kind possible to get; rusty pork, the poorest quality of ship bread (no butter), though vessels carried it usually at that time, whole bean coffee, which had to be roasted and ground; plenty of beans, which had to be cooked a long time to make them eatable, and a quantity of worm eaten dried apples, made up the larger portion of our stores. We also had a quantity of cheap beef.

No Variety of Food.

None of the vessels of that day had any great variety of food as is found on the craft of these times, but the food on this trip was exceptionally poor in quality, being the cheapest that the market afforded.

Finishing the loading of barrels, salt, stores, etc., we sailed for Rockport, where we took on the last few things necessary for the trip.

We took no bait, though menhaden were plentiful, and what we needed could have been caught in a few hours by the crew, as was done by other craft. Our passage down was uneventful, we stopped at "Steep Creek," where the Rockport vessels went for their wood and water before going into the "Bay," the old-fashioned fireplace consuming much fuel.

While lying at McGuire's one of the crew went aboard the schooner Constitution, which was at anchor there, and coming back, reported that "they had butter on the table." (I mention this to show how changed are those times from the present.)

Going into the "Bay," we sailed along the Cape Breton shore to East Point. The North Bay is practically an inland lake, being almost entirely surrounded by land, with Nova Scotia and Cape Breton on the south, New Brunswick on the west, separated by the Straits of Northumberland, which are some 10 miles across, from Prince Edward Island, which is some 100 miles long. The island is quite low, but good farming country for such crops as can be grown in that latitude.

On the north is the coast of Labrador, with the island of Anticosti, some 80 miles long by 40 miles wide, at the mouth of the St. Lawrence river. Then the Magdalens, a group of several islands, about which are to be found banks and shoals, some of the finest fishing grounds in the world.

We tried for fish at East Point, baiting hooks with pork and catching some fish, which were ground up for toll bait for mackerel.

After procuring all we desired, we went to the Magdalen Islands, where later I made many fine catches and caught some mackerel, but they were so thin and poor we used them for toll bait.

From here we sailed to "Bank Bradley," and found some mackeral, but small and of poor quality. At Bon Adventure we saw a great deal of shipping; when navigation opens in the spring, great fleets of timberships might be seen going up into the St. Lawrence River. The island is a landmark for miles around, and sighting the island, these craft shape their course for the mouth of the river.

In looking for mackeral, we visited grounds which were new to most of us, going up into Gaspe bay and Gaspe Basin. There is a fine harbor here, capable of sheltering a great number of vessels. It was from here or rather at this place, that assembled or rendervoused, the fleet of transports which under the convoy of men-o'-war, later sailed Canadian troops for the present war. A friend who was on a business trip there this summer, told me that it was a grand sight as these transports passed down the bay, just previous to sailing.

We anchored in the deep harbor at Gaspe Basin, taking on a supply of water. There are few places in the North Bay where water can be procured easily. While here the crew gathered blueberries, and these were quite a treat for us. From Gaspe we went to Point Misco where we found very good fishing. Point Misco makes the South side of Bay Chaleur. The land on the south side is in the Province of New Brunswick and is good farming land, while that on the north side is in the Province of Quebec, high and mountainous.

It came on bad weather and we went to Pasebiac for harbor; this was the headquarters of the Jersey Fishing Co.

Bay Chaleur is a great Bay, 60 miles deep with the town of Bathurst at its head. A great deal of lumber was shipped from here in those days and in the spring of the year was quite a busy place, the harbor presenting a pretty sight with its many timber craft.

Fishing off Misco, we harbored in an easterly, at Shipegan, on the south side of the bay. Considerable farming was done here, also lumbering and we saw a ship loading with deal, or lumber, for England. At this place, some of the crew being ashore, found where potatoes could be purchased cheaply, but the skipper would not buy any, thinking to spite the men.

Just Cleared the Breakers.

It was the custom, when on the fishing grounds, to take in the mainsail and jib at night and "jog." The first watch went aft and received his orders from the captain "to jog" and when to place the vessel on the other "tack," but the skipper said so much, as was his custom, that no one could understand him, and when the next watch came on there was no word "passed," so we "jogged" all night on the same tack, coming very near running ashore, discovering the breakers just in time.

I recall one occasion, we were fishing in the bend of "the island," (P. E. I.), and mackeral were biting quite freely; the skipper began finding fault with the watch for being so far off shore. "Skipper" Clark as we called him, who was on "watch," told the captain that he could not see as it made much difference, as long as we were on plenty of fish whether we were near the shore or not. With that the captain ordered the jib hoisted and stood to the land. There was plenty of fish in closer also, but it began to blow heavily, and we had great difficulty in getting off shore. As it was, we lost our jibboom and mackeral with some of the "gear." Even then we should have been piled up on the shore if the wind hadn't canted.

An Incident Off East Point.

After this we fished around East Point. I recall an incident that occurred while we were lying at anchor at this place. A boat came alongside with potatoes for sale, but we could not get the captain to buy any. The captain's brother was in a craft named the "Tam-o-Shanter" and while the skipper was visiting his brother, we exchanged tea, which was rather poor stuff, and a barrel of salt codfish, for two barrels of potatoes. I recall that these were small, red affairs, and were called by the natives "Scotch Apples." Some of the crew were so eager to have a change of diet that they peeled some of these, and ate them raw. The skipper was much surprised at dinner, when he saw the potatoes on the table, but I noticed that he ate a good sized dish of them.

The voyage was coming to an end, however, and soon after we hoisted the jib and kept off for Canso and then home. The trip had been an unpleasant one. With a new vessel and a fine crew it should have been otherwise. We were all glad to get home again.

Great Change From Then to Now.

There is a great change in the manner of living and in the conveniences of those days, and in the present time. In the old style craft the entrance to the cabin was from near the "after" hatch, the chimney and fireplace being by the stairs, on the starboard, or right hand side. The cooking utensils were few and simple, consisting of a large iron pot, Dutch oven, frying pan, coffee boiler and several tin basins for table ware, tin soup plates, together with knives, forks and spoons and yellow mugs.

There was no sugar, butter, raisins, etc., which would have given us a little variety on this trip in the "Juniata," but even with a lack of these and many other things which are considered necessities now, we could have been satisfied with a different "skipper."

On our arrival home from the Bay we found the wharves filled with mackeral, a great "school" of large mackerel had "struck" along the shore on August 5 of that year, splendid fat fish, and of a much better quality than ours, which were sold at a very low price. We got very little out of our trip, and this was a great disappointment to me as I had planned to get a few weeks at a private school and perfect myself in the three R's. As it was, I took to a dory instead.

Memory of Mates is Clear.

Sixty-six years have passed since that trip but the memory of it and the crew are so familiar to me as though it were yesterday.

The "skipper" Josh Pool, was one of those old fisherman school masters, going fishing summers and teaching the three R's during the winter months. After giving up fishing he went to Vineland, New Jersey, where he died. During the last few years of his life he led a hermit's existence.

Clark, one of the members of that crew, died at home I am told. Hoyt went to California during the gold craze in 1849, working his passage out in a ship which went around the Horn. Several of the crew of this ship were from Rockport and several had been masters of ships.

On the passage out, some of the officers began to "haze" the crew (as was the custom in many of these deep water craft) and it is said that Hoyt, who was a big powerful fellow, went aft and told the captain that they shipped to work the vessel and would do their duty at all times, but they were not going to polish brass and swab decks.

It is related that he also told the captain that if the officers laid their hands on any one of the crew that it was as if they had struck the whole.

Hoyt never came back to Rockport. During the Civil war he enlisted in a California regiment, and it is supposed that he fell in a battle, at least nothing was afterward heard of him.

George Pool also went to California, going around the Horn in 1850, but his stay was short there. He enlisted during the Civil war, and was drowned at Roanoke Island.

Derbin was drowned; falling off the Chelsea bridge. Knights died at Pigeon Cove years ago, while Roberts another member of that crew, died at his home in Lanesville.

The three boys have long since passed away, the late George J. Tarr being the last except myself of that crew of the "Juinata," making that trip to the "Bay" in 1848.

Recalling the events of that trip and the men who were members of that crew, the scenes and faces come to me over the sea of time and it seemed well to review them before the curtain rings down and the voyage of life is ended.

CATCH WAS WORTH $1,000 PER WEEK.

One thousand dollars a week for twenty-two consecutive weeks was the earnings of the Grimsby trawler Calvinia, Captain Kay, which called at North Sydney, N.S., for bunker and supplies previous to her journey to her home port in England. And the Calvinia was not high-liner of the quintet of English trawlers operating this Fall on our coast, for the Rayondor, which also called here last week for coal and supplies to carry her across the big pond, greatly exceeded the Calvina's catch.—Sydney Herald.

Before giving advice prepare to stand from under.

The money of a miser never acquires the talk habit.

Who's Who in the Fishing World

"The fish business is very interesting it is even fascinating; it is a world by itself, a world that appeals to all the crafts of mankind. There is speculation in it for the gambler, color and lines for the artist, romance for the imagination, and wealth for the industrious business man." Thus spoke Mr. J. A. Paulhus, of the D. Hatton Company, Montreal, to a question put by a Canadian Fisherman representative, and this preface is characteristic of the man.

It discloses a poetic mind tried to a business attitude. We are told that Pierpont Morgan was fond of writing poetry in his youth. Many clever financiers and economists have at some period of their lives shown a foible for romance, literature or art. Our "Who's Who" of to-day can be ranged in that category. He is a literary man of some merit. He has literary taste, and has even the temperament of a man of letters. The many articles of fiction, essays, and impressions, which he has written, show a deep knowledge of the art, besides the use of an extensive vocabulary of choice expressions, quite uncommon in a business man. He writes in the French and English languages, with almost the same ease and effectiveness.

During the last decade he has certainly done as much as any living man to draw the attention of the general community to the possibilities of the fish business and fish industry. His periodical visits to fish centres in the most remote places and his continued studies on fish life, added to his own observations from nature have enabled him to speak and write with authority on the matter. We believe that the radical change which is now taking place for the better in our oyster industry is due, in a great measure, to his devotion to this cause. His vigorous appeals to commonsense and reason have at last killed the evil of procrastination and routine. Having traveled extensively on this continent and abroad, his keen observing mind, helped by a good memory has given him a faculty to appreciate men and events with a certain wisdom and originality. He has decided ideas of his own on what he has seen and heard. Though easy and even humorous in general conversation with intimates, he shows shyness and reticence among strangers and nervousness when speaking in public. He is an optimist by nature, enthusiastic and of very progressive ideas.

The firm of which he is the managing partner was founded by his late associate, Mr. Daniel Hatton, in the year 1874. It was then known as D. Hatton and Company. Mr. Paulhus entered the firm in 1889, as junior clerk, and became partner 15 years later, and for some years before the late partner's death he was actually in charge of the business. Besides being one of the pioneer houses in the country the D. Hatton Company is also one of the leading ones on the continent, and their house on Bonsecours Street, Montreal, is better known than the street itself—as well known as the Bonsecours Church and the Bonsecours Market nearby. It is a landmark, and a very busy place all the year round. They are neither curers nor producers of fish, but general receivers and distributors—really a fish exchange, where the products of the seas converge periodically and are from thence distributed.

Our "Who's Who" is also greatly interested in real estate, and other industries. His property, known as the Barclay Islands, in the Jesus River, will certainly become one of the most sought for spots for summer residences, owing to its peculiar position and favorable distance from the city.

Mr. Paulhus is a life member of the Club Canadien, Montreal Reform Club, Canadian Club, Chambre de Commerce, and St. John the Baptist Society. Though he has never been to the front or seen any active service, he is a soldier of the Liberal Party in politics.

Mr. Paulhus was born at Ste. Victoire, Richelieu Co., Quebec, in 1868. After attending the village school for some time, he was sent to Sorel College and afterwards to Varennes Commercial College, where he gained his diploma for proficiency in business matters and won the Governor-General's medal for highest merit in the Colleges of the Province of Quebec.

He was married in 1909 to Teresa, third daughter of the late Charles Blundell Rimmer, formerly of Lydiate Hall, Lancashire, England.

Simple in taste and manner, he spends his leisure time at home, with his books, or an occasional evening at his club with some of his old friends. He is a genial host and most entertaining.

He enjoys the beauties of nature and revels in the delights of country life at his summer residence in St. Rose. He is particularly fond of teasing fish with the rod and line and boasts of having caught almost every known specimen from a minnow to a whale. He actually viewed from the deck of a whaler the capture of a large cetacean off the coast of Newfoundland.

Mr. Paulhus has been 25 years in the fish business, and we hope to see him as many more, for the benefit of his firm and of the general fish community.

Newfoundland's Fish Industry and the War

By J. W. McGRATH.

The great step that the British Empire took in the war seemingly spelt ruin to the people of her oldest Colony, Newfoundland. Fully four-fifths of Newfoundland's population depend entirely on her fishing industries for support, whilst to the remainder of the people a great or small fishery, higher or low prices prevailing in foreign markets for fish, have a very real meaning. At the commencement of the war some hundreds of thousands of quintals of cod fish were waiting to be marketed, thousands of cases of lobsters were similarly waiting to be sold, whilst smaller amounts of salmon and herring had not yet been shipped to their consignees. From her insular position all exports are conveyed in steamers or vessels. The proximity of hostile warships at the beginning of the war placed every cargo of exported produce in extreme jeopardy, and exporters were naturally timid in shipping, and ultimately they were prevented from shipping through the great jumps in insurance rates attached to all foreign consigned cargoes. The greatest consumer of Newfoundland cod fish, Italy, was apparently a nominal enemy; the dubiety of her attitude was sufficient to prevent any cod being shipped to Italian customers.

Fishermen who had held back their fish before the war, expecting higher prices, now rushed in panic to sell—in vain. Down, down went the price, and fish, which could not be had previous to the war for $7.00 a quintal, was now eagerly offered for $3.00 a quintal. The prospect was anything but encouraging. Fishermen saw hard times before them. Fish exporters felt shadows of collapse. Business rallied. Italy was not likely to participate in the war. The trade routes across the Atlantic were safe. Norway, our rival competitor in marketing cod fish, found her fishing grounds in the North Sea subjected to severe limitations, owing to their proximity to the theatre of naval warfare. Norway's necessity was Newfoundland's opportunity. The accumulation of fish in Newfoundland began to be disposed of, and more than this, a demand, due no doubt largely to Norway's inactivity, was created. Just as the price had declined, so it rose from $3 till it reached $7 again, and whilst market quotations to-day give this figure, yet not a few shipments have been made at a higher price.

The causes that sent our cod fish declining in value operated more disastrously with the lobster; but the causes that restored normal prices to our cod have not done likewise to our lobsters. Before the war, agents for foreign firms offered $25 per case (a case holds forty-eight one pound tins), but packers were slow to sell, being confident of an advance in price. When the war came, nearly all lobsters were in the hands of the packers. The price of $25 fell to $8 in a few days, but even this figure for a time found few purchasers. That the price did not ultimately right itself as in the case of the cod is due to one great reason. All Newfoundland lobsters have for years found a ready market in Germany, and the work of replacing these markets by others elsewhere, cannot be very quietly accomplished.

About the middle of November the Board of Trade of St. John's were notified by the French Government that it was prepared to purchase our lobsters. Since that time lobsters have risen in price, and the tendency is for a still greater advance very soon.

Altogether the prices for all our fish continue firm. The demand seems to be constantly maintained, and prospects for the future are, to say the least, favorable.

RESULTS OF SEA FISHERIES OF CANADA FOR THE CURRENT YEAR.

The complete results of the fisheries for the current year will not be known for some time yet, because the official year does not end till the 31st of March next. From the monthly records kept, however, the following indicates what success has been attained throughout the months, April-November, in which fishing operations are largely carried on:—

The weather on the Atlantic coast during the months of April, May and June was rough and most unfavorable for fishing. Ice remained late in the harbors and bays, so that lobster fishing was a month later than usual in opening at many places to the eastward of Halifax. Fish were abundant on the fishing grounds, and with good fishing weather in July and August good catches were secured, until the inevitable dog-fish and the scarcity of bait put a stop to successful operations.

Notwithstanding these adverse conditions the amount of fish landed on the Atlantic Coast, during the period from April to November, and the value of the catch in first hands are greater than for the same period in the preceding year. The catches of cod, haddock, pollock and sardines all show considerable increases over last year. Those of herring and mackerel, however, are rather less than in the year before.

From the opening of the lobster season in November, 1913, till its close in August, 1914, there were 154,441 cases canned, and 78,781 cwts. shipped fresh. During the preceding season there were 153,815 cases canned, and 93,536 cwts. shipped in shell.

Since the opening of the oyster season in October last till the end of November there were 20,917 brls. taken, compared with 20,292 brls. for the same period last year.

The salmon fishing on the Pacific began under favorable weather conditions in the month of June, and continued to be prosecuted with success, notwithstanding wet, unfavorable weather later on. As the present year constitutes what is known as an off-year on the Fraser River, the quantity of salmon taken and the value of the catch are much less than in the preceding year, which was the big quadrennial year.

Owing to this fact the total value in first hands of the fisheries of Canada, as far as can at present be judged, will be about one and three-quarter million dollars less than the value of the production in 1913.

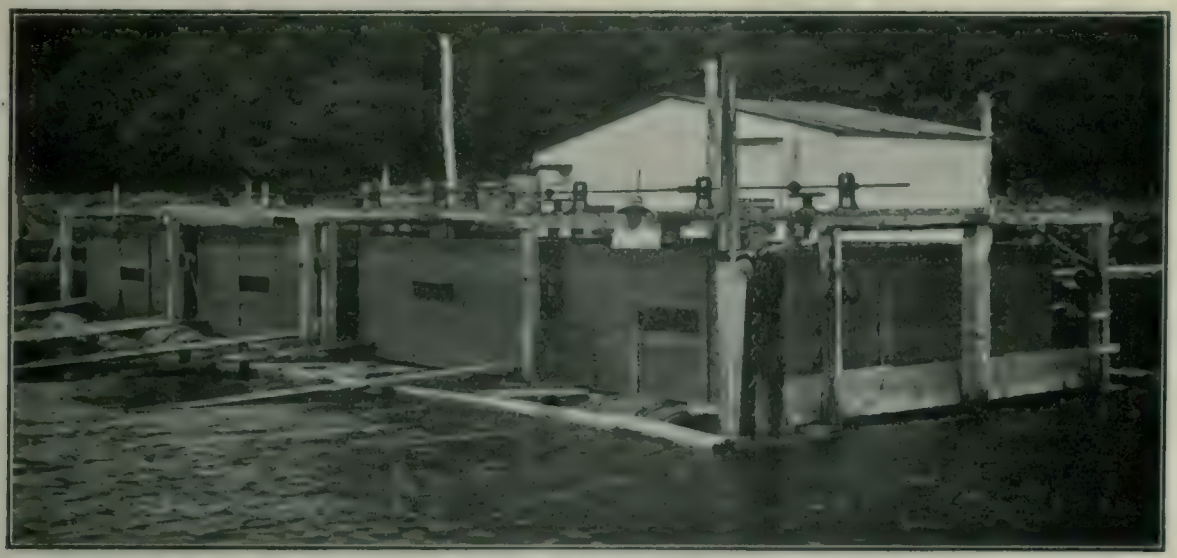
SCOTCH HERRING BEING SOLD IN GERMANY.

'Tis a commercial age—war or no war. A Stettin (Germany) house reports the receipt of a large consignment of Scotch herring, via Norway. Of course an English house was the consignor, and it knew that Germany was the eventful consignee. Business is business, and even belligerents should be permitted to eat.—Fish Gazette.

THE CONSERVATION OF THE LOBSTER

By A. J. CAMPBELL.

The accompanying pictures show the natural pond and enclosure at Long Beach, Digby County, Nova Scotia, where the Biological Board of the Department of the Naval Service are conducting research and ex-



The enclosure for observation purposes.

Berried Lobsters.—Lobster to the right shows eggs hatching; Lobster to the left laying eggs.

perimental work in the lobster industry. They have acquired this pond for the purpose of caring for berried lobsters purchased from the fishermen during the fishing season and retained until the beginning of the close season. This scheme serves a double purpose. The seed lobsters are preserved from dangers and an excellent opportunity is provided for scientific research in the habits and development of lobsters and for experiments in hatching them.

The enclosure, which has been built in the natural pond, is 114 feet wide at one end and 220 feet wide at the other, and is 245 feet in length. The station has now been in operation for two seasons. During this time upwards of 1,000 female logsters, each over ten inches in length, have been purchased from the fishermen, kept safely and fed for several weeks in these comfortable quarters and afterwards given their liberty.

A distant view of the Long Beach Lobster station

THE WAR AND THE PORTUGUESE FISH TRADE WITH CANADA AND NEWFOUNDLAND.

A curious effect of the war is its bearings on the future of the fish trade of Newfoundland and maritime Canada. The war has revived the ancient alliance between Great Britain and Portugal, and a result has been that a discrimination made by Portugal, for many years against fish from Newfoundland and the Canadian maritime provinces has been removed. The products of this region are now admitted to Portuguese markets on an equality with those of all other countries.

Until hostilities began the chief beneficiary of the conditions existing was Norway, which, because of general trade with Portugal, enjoyed an advantage in the matter of duty charged on dry fish entering Portuguese harbors, equivalent to from 25 to 35 cents per quintal of 112 pounds, according to the fluctuations in the rate of exchange. This gave the Norwegians sufficient advantage to permit them to undersell the Newfoundland and Canadian product. Representations had been made several times by the government of Newfoundland and Canada in an effort to secure the removal of this handicap, but without avail until after the war began, when the desired alterations were made.

One reason for the discrimination was the objection of Portugal to the custom on this side of the Atlantic of applying to certain wines not produced in Portugal the name of port wine. The Portuguese government claimed that the word port could be applied properly only to wine from that country. Reciprocal concessions have been made, Canada and Newfoundland agreeing to Portugal's terms in this respect.

The imports of wine to Newfoundland last year amounted to only about 3,000 gallons, valued at $5,000, whereas the exports of dry codfish from Newfoundland to Portugal amounted to 200,000 quintals, valued at $1,250,000.

Next to Brazil, Portugal is the largest purchaser of the Newfoundland commodity.

It is expected that similar concessions will be secured from the Spanish, Italian and Greek governments in the near future and that the foreign trade in codfish will be greatly increased next year.

Wholesale Fish Prices, Montreal Markets

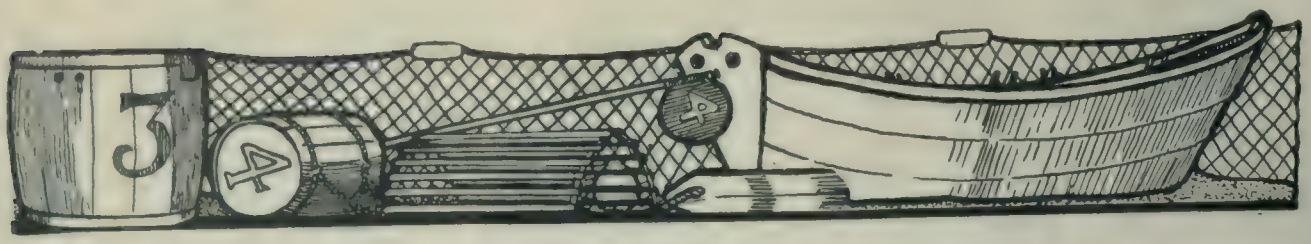
(Quoted by D. Hatton Company.)

Fish trade has been very active the present month, but a lull of a few days is expected during holiday time.

Stocks held in provision of winter trade are not too large. It is feared the early cold spell we are having might interefere seriously and perhaps close entirely the fishing on the east coast for the season. This would cut short the supplies of frozen haddock, codfish, haddies, fillets, etc.

To sum up.—The year that is ending now has been a good one for the fish business. It is evident Fish as a food is increasing in popularity. With the return of Peace, which we hope will not be too long to come, fish trade can look in future with optimism and confidence.

Smoked Fish.			
Haddies, 15 lb. boxes new	per lb.	$	.07½
Haddies, 30 lb. boxes	per lb.		.07
Haddies, Fillets	per lb.		.10
Haddies, boneless, 15 and 30 lb. boxes			.08½
Yar. Bloaters, 60 in box, Selected			1.20
St. John's Bloaters, 100 in a box			1.00
Kippered Herrings—Selected			1.40
Kippered Herrings—Other brands			1.20
Smoked Herrings—large size, per box			.15
Smoked Herrings—medium, per box			.20
Smoked Boneless Herrings, 10 lb. box			1.10
Ciscoe Herrings, a basket 15 lbs.			1.50
Smoked Eels			.12
Fresh Fish.			
Salmon Gaspe	per lb.	.15	.16
Salmon, British Columbia	per lb.	.13	.14
Halibut	per lb.	.11	.12
Mackerel	per lb.	...	.10
Haddock	per lb.	.05	.05½
Market Codfish	per lb.	.04½	.05
Steak Sodfish	per lb.	.06½	.07
Smelts Medium	per lb.		.12
Blue fish	per lb.		.16
White fish	per lb.		.12
Lake Trout	per lb.		.11
Dore	per lb.		.12
Pike	per lb.		.08
Eels	per lb.		.10
Carp	per lb.		.10
Dressed Bullheads	per lb.		.10
Perch	per lb.		.06
Lobsters live	per lb.		.26
Lobsters Boiled	per lb.		.28
Frozen Fish.			
Salmon—Gaspe, large	per lb.	.13	.13½
Salmon—Red, Steel Heads	per lb.	.11	.11½
Salmon—Red, Sockeyes	per lb.	.10	.10½
Salmon—Red, Cohoes or Silvers	per lb.	.09	.09½
Do. Dressed	per lb.	...	...
Salmon and headless	per lb.	.10	.10½
Salmon Pale Qualla, dressed	per lb.	.07½	.08
Halibut large and medium	per lb.	.09	.09½
Mackerel, Bloater	per lb.	.08	.08½
Herrings, medium, 50 lb. per 100 count			2.00
Herrings, large, 85 lb. per 100 count			2.50
Haddock, medium & large	per lb.	.04½	.05
Market Codfish	per lb.	.04½	.05
Steak Codfish	per lb.	.06	.06½
Pollock	per lb.	.04	.04½
Tommy Cods	per brl.		2.00
Smelts, extras 10, 20, 25	per lb.		.15
Smelts, medium to large	per lb.		.11
Smelts, small	per lb.		.06
Canadian Soles	per lb.		.07
Blue fish	per lb.	.16	.17
Striped Sea Bass, large	per lb.	.15	.16
Sea Trout	per lb.	.10	.10½
White fish, large	per lb.	.10	.10½
White fish, small Tulibees	per lb.	.06½	.07
Lake Trout, large and medium	per lb.	.10½	.11
Dore, dressed or round	per lb.	.08½	.09
Pike, dressed and headless	per lb.	.06½	.07
Pike, round	per lb.	.05½	.06
Eels	per lb.		.10
Shad, 3 lbs. each			.08
Frogs, 10 lbs. tins			.20
Pickled Fish.			
Salmon, Labrador, Tierces 300 lb.			20.00
Salmon, Labrador, Brls. 20 0lb.			14.00
Salmon, B.C., brls.			13.00
Sea Trout, brls.			12.00
Sea Trout, half brls., halves			6.50
Mackerel, N.S., Brls. 200 lb.			12.00
Mackerel, N.S., Hf. Brls. 100 lb.			6.75
Mackerel, N.S., Pails, 20 lb.			1.50
Herrings, Labrador, Brls.			5.50
Herrings, Nova Scotia, Brls.			5.25
Herrings, Nova Scotia, Half Brls.			2.90
Lake Trout, Half Brls.			6.00
Quebec Sardines, Brls.			6.00
Turbot, brls.			14.00
Salt Dried & Prepared Fish.			
No. 1 Green Cod, large, per barrel			10.00
No. 1 Green Cod, medium, Brl.			9.00
No. 1 Green Cod, small Brl.			8.00
No. 1 Green Cod, Haddock, medium, Brl.			8.00
No. 1 Green Cod, Pollock, Medium, Brl.			7.00
No. 1 Green Cod, Hake, medium, Brl.			6.50
Quebec Eels, large, per lb.			.07½
Dried Codfish, med. & small 100 lb. bundle			7.00
Dried Hake, medium & large 10 0lb. bundles			5.50
Dried Pollock, medium & large 100 lb. bund.			6.00
Dressed or skinless codfish, 10 0lb. case			7.25
Boneless Codfish, 2 lb. blocks, 20 lb. boxes			.08
Boneless Codfish, strips 30 lb. boxes			.11
Shredded Codfish, 12 lb. boxes, 24 cartons, ½ lb. each, a box			1.75
Bulk Oysters, Clams, Etc.			
Best Standards, imp. gallon			1.40
Solid meats, imp. gallon			1.70
Selects, best, imp. gallon			1.80
Selects, solid meats, imp. gallon			2.00
Best clams, imp. gallon			1.50
Best Scollops, imp. gallon			2.00
Best prawns, imp. gallon			2.00
Best Shrimps, imp. gallon			2.25
Oysters pails, ¼ gal. per 100			1.10
Oysters pails, ⅛ gal. per 100			.90
Oysters pails, 1-16 gal. per 100			.70
Sealed best standards, quart cans, each			.35
Sealed best selects, quart cans, each			.45
Oysters, Clams, Mussels and Shell Fish, Crustaceans, Etc.			
Cape Cod shell oysters, per barrel			8.50
Malpeque shell oysters, selected C.C.I., brl.			11.00
Malpeque shell oysters, selected J.A.P., brl.			9.00
Malpeque shell oysters, ordinary, per brl.			8.00
Malpeque shell oysters, caraquets, per brl.			5.00
Clams, per barrel			7.00
Mussels, per barrel			5.00



THE ATLANTIC FISHERIES

CANSO, N.S.

(Special Correspondence.)

Since my last month's report, blowy weather has continued to greatly handicap the shore fishermen, though not to so great an extent, as last reported. On the favorable days, fish are being found in increasing quantities and indications are good that the big haddock schools will not forget to visit us as usual at this season. A record fleet, many from outside points such as Dover, Queensport, Eastern Harbor (or Cheticamp) and P. E. Island, has temporary headquarters here, in trim for the following up of Canso's winter fishing, the fame of which is becoming known far and wide.

The steam-trawler Rayondor, Capt. Olsen, last week brought in a trip of about 130,000 lbs., 100,000 of which were haddock. She fishes for the Maritime Fish Corporation branch here.

On December 4th, J. D. Cowie, of Marine and Fisheries Department, arrived here in company with John Dillon, local Fishery Officer, and at a public meeting in Oddfellows Hall, carefully explained the objects and main features of the new Pickled Fish Inspection Act. A small but fairly representative collection of fishermen and others was present, and listened with great interest to Mr. Cowie's simply-worded explanations. The speaker first pointed out the object of the act, and the advantages which must accrue to those making use of it, and gradually to the entire industry. The required standard for barrels with the various classes and grades of fish and the work and duties of inspectors were also explained, and those present went away with a clear conception of the scope, meaning and advantages of the new legislation. Mr. Cowie dwelt on the fact that the Department intends to widely advertise this "Crown" brand both at home and abroad, and that therefore to derive any permanent results, the inspection must be rigid, and nothing of a farcical nature permitted. In this connection, the writer read with hearty approval the comments in the December issue of the Pacific Coast correspondent of the CANADIAN FISHERMAN. The Government should be careful to appoint as Inspectors men who understand their business and will do their duty and not mere peanut politicians; otherwise, the Act will be likely to become another useless statute, and wise legislation brought into contempt.

In reviewing the fishing industry of Canso for 1914, it is the very pleasing task of the writer to record an advance over past years—a high water mark in the total export shipments of fish products. The following figures, obtained from reliable sources, may be yet increased somewhat by the end of the year.

	Tons.
Exports via Mulgrave	6,100
Other Exports by Water:—	
Fish Oil	200
Fish Glue	75
Fertilizer	300
Fish	1,200
Total	7,875

Comparing the above figures with those for 1913, a substantial increase is noted as follows for 1913:—

	Tons.
Exports via Mulgrave	5,314
Other Exports:—	
Fish Oil	250
Fish Glue	75
Fertilizer	350
Fish	1,100
Total	7,089

This increase is most satisfactory in view of the fact that 1914 has been characterized by an unusual total of rough, windy, or otherwise unavailable fishing days. Of course, in an important fishing centre, such as Canso, where many different branches of the industry are being worked under differing conditions of seasons and markets, all departments will not show the same degree of progress. Some may even witness a great advance in the same period, where others show a decline. Therefore, to give a clear idea of the period under review, the writer will now go back to th beginning of the year, and briefly summarize, to the best of his knowledge and ability, the essential features of each important line.

A little later than the middle of January, the winter haddocking came to a close, with a most satisfactory showing. High-line stocks had been the order of the day and price of $200 per cwt., ruling during the most productive period, gave good returns to the catchers. The first week of January was the banner one—the crews clearing from $25 to $100 per man, and the catch for the week totalling about 800,000 lbs. Fish plants were busy day and night, icing, boxing, smoking and otherwise handling and finally shipping off the fresh and smoked products to the consumer.

With the winding-up of the winter-haddocking came the annual "lay-off" spell. February and March are always non-producing months, so far as the actual catching of fish is concerned. The icy breath and cold hands of winter forbid activity of that kind. The spearing of eels through the ice for home use is the most attempted. However, the energetic fisherman usually finds a good deal to occupy most of the time. During these months, ice-houses are stocked by the various fish firms, netters and trappers get their gear

in shape for the coming spring schools and those who engage in lobstering find plenty to do in fixing up old pots, making new ones and getting in general readiness for the arrival of the open season. The ice-crop stored in 1914 in Canso exceeded that of any previous year.

The spring lobstering must be labelled as more or less a failure. The season legally opened as usual on April first, but actually nothing was done till well along in May. The presence of ice and unseasonable climatic conditions was the cause. The open season in this vicinity is legally supposed to close with the end of June, but in recent years, extensions of a fortnight or so have been frequent. Contrary to the usual custom, however, the 1914 season was shortened by ten days, thus closing on the 20th of June. As I have said the result of the season's work was disappointing, the high price being the sole redeeming feature. The lobster hatchery was busy, as usual, though a little late getting into its working swing, because of the late opening of the catch.

The unprecedented ice-blockade of April and May while interfering greatly with the operations of the Atlantic bankers (about 80 being held up here at one time) also, of course, hindered the shore trawlers.

Th traps at White Point enjoyed some record-breaking results from the closing days of May to end of June. Splendid fares of haddock, cod, mackerel, etc., were landed. The price of spring mackerel ruled very low, large catches of tinkers on American coast being blamed for this.

The summer months brought good returns to the handliners and shore fishermen generally. One Canso boy, fishing alone in a motor-boat, cleared well over $80.00 for the week ending July 11th. Of course, such an excellent week's work was above the average. Prices ruling at that time were steak cod $2.00, cod and haddock $1.25, pollock 60c.

Swordfish appeared on the coast in force as usual about the first of August. This branch of fishing, though young in years at Canso, has developed wonderfully, and become one of prime importance. The American market (by the way, there appears to be practically no Canadian market for this fish) was slightly low, but a great many fishermen by shipping their own catches derived the full benefit of it.

The fall and winter months up to date have been marked by exceptionally rough weather conditions. Weeks of blowy rough days with only an occasional one suitable for setting, have handicapped the shore fleet badly. And not only the trawlers but fall mackerel netters also felt its effects, though among the latter some individual good hauls were taken. The market unfortunately was very unsatisfactory.

Dog-fish invaded the off-shore grounds about the latter part of September. About first October the Reduction Works opened and were kept more or less busy grinding up the invaders. The totals of Oil and Fertilizer exported are shown by table above to be somewhat smaller than last year.

The Robinson Glue Company commenced operations for the year about mid-June and is still busy turning out the "Crusoe" brand, which they claim "sticks everything but the buyer."

Since October 16 the town has been enjoying electric light supplied by its own plant. Many of the fishermen can now bait up, when using the bait-sheds, by this modern means of illumination, instead of the old flares and lanterns.

The various fish firms, from all accounts, have enjoyed a satisfactory year's work, though some changes and additions have taken place in their ranks. The North Atlantic Fisheries suspended operations here in June, but Mr. A. W. Fader, their branch manager here,from the start, remained and went into business on his own account. Portland Packing Co., formerly dealing in lobsters only enlarged the scope of their business to include other lines. J. W. Sproule, a former merchant here, also recently re-entered the ranks.

Up to August, the Maritime Fish Corporation handled the fine fares—mostly halibut—of the Albert J. Lutz and other bankers. On August 3rd, the Grimsby steam trawler Rayondor arrived in port and has been operating since for that firm, making port each week-end, generally with big trips.

A very large fleet (to which my notes for the month refer more fully) is now here, equipped, and hoping for a record wind-up to the year's work.

The CANADIAN FISHERMAN has asked of me not only a review of 1914, but also a word as to future prospects. No role is so unprofitable, unless indulged in with great circumspection, than that of the prophet. Weather conditions and the ups and downs of markets play a large part in determining the results of off-shore fishing and are difficult to forecast, but one may venture to state a few probabilities based on present conditions.

As to the winter fishing now on, unless a sudden and early change develops in climatic conditions, the season must be written decidedly poor. Let us hope not, however. The outlook for next spring's lobstering, as a consequence of the war, seems rather gloomy, but many things may happen before then, to brighten the situation. As to the general outlook, there is no special reason to look for any disastrous lagging in the steady steps of Progress, to which Canso has become accustomed of late years. On the contrary, let fishermen, fish merchants and citizens, all inspired by a sane, practical optimism, prepare, hope and strive for the realizing of a new record—a greater-than-has-been in Canso's fishing operations during the new year about to dawn, and that very attitude will help toward the desired goal.

CHATHAM, N.B.

(Special Correspondence.)

The fishing business in this vicinity has been fairly satisfactory. The catch of codfish was perhaps hardly up to the average, but good prices were got by the fishermen, and prices were maintained, so that exporters had a reasonable profit on their turn-over. The salmon business was an average catch, but prices on the foreign markets were low. The mackerel fishing was good; prices were low, which has caused an increased consumption, and the goods that were frozen are moving off readily at the present time.

The catch of lobsters was hardly up to the average. In this vicinity there was a very severe storm that militated very much against the fishermen and the packers; after the pack was all completed, war was declared and a large quantity of canned lobsters as a result, was left in the hands of the exporters. Germany is a large consumer, and that market was completely shut out. We think canned lobsters have worked off in a satisfactory way under present conditions, although there are considerable quantities still on hand in the hands of the exporters, but we do not

think that the pack was quite up to the average, and had it not been for the war, a great many orders would not have been filled in full, so that we do not think there is any quantity of canned lobsters on hand that will militate to any extent any further reduction in price. Prices have been fairly well maintained, and the goods are going into consumption in a limited way, and while price for next year will be somewhat lower than last year, still we do not believe that any great quantity of lobsters will be carried over into next year, that will make next year's prices so small as to be unremunerative to the fisherman and packer. The fact that lower prices are anticipated will curtail the fishing and the pack for next year. The important thing for lobster packers to do is to see that their pack is first-class in every respect, and to conserve the industry by strict enforcement of the close season. It is to be regretted that although the canning of lobsters is considered a hazardous industry, because of the increased cost of production and the lessened pack each year, that notwithstanding this, poaching is done, although the Government have officials to prevent same; it is to be very much regretted that this does not appear to be sufficient to stop the canning of lobsters out of season.

We are informed that lobsters canned out of season this year are placed on the market at the present time in unlabelled tins at about half their value. These are being peddled to the retail trade and sold in unlabelled tins.

We are persuaded that if the packing of lobsters out of season was stopped altogether, and strict enforcement of the law during packing season, that the lobster industry could be maintained at its present pack per annum. If the Government will stop fishing after the season, and stop issuing indiscriminate licences, which privilege is overdone and abused, the industry could be maintained on a business basis.

DIGBY, N.S.

(Special Correspondence.)

During the latter part of November very rough weather kept the boat fishermen in the harbors most of the time and few fish were caught. Bait also was very scarce and at one time was costing the fishermen $25 a hogshead. December opened up with fine fishing weather and what boats were lucky enough to secure bait had excellent fishing for a while, landing about 40,000 lbs. mixed fish here in one day. One boat fishing from Centreville stocked $100 to a man in two days' fishing. Since then and at the present time the usual Fall and Winter weather is prevailing here and there seems to be the usual quantity of fish in these waters.

In last month's FISHERMAN there appeared, under the "Piscatorial paragraph" section, a comparison of the amount of Clams shipped from the Annapolis Basin during the past and present seasons. There no doubt was a typographical error in printing the amounts which read, "1,000 barrels and 300 barrels respectively." This should have been 10,000 barrels in 1913 and 3,000 barrels shipped in 1914. This decrease in the amount of clams shipped from this vicinity may at first give one the impression that the clam beds here were becoming depleted; but such is not the case. Conditions of the market were wholly responsible for the decrease. The United States is practically the only consumer of these clams, and they have had a great quantity this last season from Ipswich, Mass., and also from the extensive artificial beds at Plymouth, Mass. Consequently the demand from Nova Scotia was curtailed; but the clams here, if anything, are rather more plentiful this year than ever before.

The off-shore fleet have not had excellent fishing by any means during the past month on account of rather severe weather and scarcity of bait. They have landed here as follows:—

	Lbs.
S.S. "St. Leonard"	232,883
Schooner "Dorothy M. Smart"	104,567
" "Doroythy G. Snow"	94,340
" "Loran B. Snow"	71,180
" "Quickstep"	45,463
" "Cora Gertie"	224,127
" "Grace Darling"	92,116
" "Lila Boutilier"	41,743
" "Albert J. Lutz"	69,580

With the exception of the export business, the fishing industry here was not noticeably affected by the war. Before the outbreak of war all branches of the fish business looked most promising, but upon Great Britain's entrance into the conflict, the export, or dry fish branch of the industry, seemed to collapse. Foreign exchange was almost prohibitive; insurance and transportation charges increased and on many routes the sailings were cancelled altogether for a short time. But after the ocean trade routes were reopened export trade generaly became firmer and the salt fish business naturally righted itself. At the present time the stocks of dry fish in this vicinity are pretty well cleaned up; and, considering the outlook at the beginning of the war, they were disposed of at good prices. The home markets seem to be wholly unaffected by the war and all the concerns here are working steadily on their product to be marketed in Canada and are having no trouble in disposing of all the lightly-cured fish they can turn out. The fishing was very poor the first of the season, but lately it has been fairly good and prices generally are about as high as last year. There were more codfish caught in and around the Bay of Fundy this year than for many years previous. The quantities of Hake and Haddock landed here to date are also in excess of last year. Several hundred barrels of Alewives were taken from the weirs in St. Mary's Bay this season; for the first time in about twenty-five years in any such quantities, the reason probably being the enforcement of the law prohibiting the dumping of sawdust into those waters. Among other fish taken in larger quantities this year than last year may be named lobsters, salmon and smelts; while in mackerel there has been a decline. During the past year great improvements were made at the smaller fishing ports along the Bay of Fundy and St. Mary's Bay shores. Breakwaters have been, and are being, constructed at the following places: Bear Cove, Belliveau's Cove, Brighton, Comeau's Cove, East Ferry, Colloden's Cove, Gross Coques, Meteghan River, and Saulnierville. At most of these places the breakwaters are not only a good thing for the fishermen but also for the travelling public and an encouragement to shipping along these shores. Weymouth harbor also received improvements amounting to twenty-seven thousand dollars, allowing the fishermen to get in and out of that port. Unfortunately the old breakwater at Meteghan was quite recently washed away by a severe gale of wind. It is quite safe to say that the fishing industry here

is going to grow during the coming year, but of course at these changeable times it is difficult to predict just how much progress there will be. With the encouragement the Dominion Government is giving the industry by the interest it is showing and the appropriation of over one hundred thousand dollars in this county, and with the energy of the fishermen and dealers in this section, we look forward optimistically to the coming year.

YARMOUTH, N.S.

(Special Correspondence.)

Rough, boisterous weather has very seriously interfered with the fishing industry in Western Nova Scotia during the past four or five weeks. Gale has succeeded gale, with but slight intermissions. For the larger portion of the time the Digby and Yarmouth fleets have been lying in the harbor. Occasionally, but very occasionally, they would make a dash out and make a set, and if by chance a vessel did succeed in making two sets it was a feat to be talked about. But in spite of it all, some good fares have been landed and on the sixteenth of the present month the largest single shipment of fresh fish ever made from this port went to Boston. It consisted of 464 cases, comprising 232,000 pounds or 166 tons, valued at a little more than $8,000. Of this large quantity the Consumers' Fish and Cold Storage Company, Ltd., shipped the largest share consisting of 272 cases, or 136,000 pounds, valued by the customs at $5,000. They were caught and landed by the following vessels:—

Schr. James R. Clark, Capt. Albert Hubbard, 12,000 haddock, 8,000 cod, cusk and hake mixed.

Schr. Quickstep, Capt. Arthur Longmire, 2,000 haddock, 3,100 market cod, and 7,000 shack.

Schr. Nathalie, Capt. Peter LeBlanc, 7,800 haddock, 3,000 mixed.

Schr. Dorothy G. Snow, Capt. Ansel Snow, 20,000 haddock, 15,000 mixed.

Schr. Kernwood, Capt. Eben Larkin, 13,000 haddock, 10,000 mixed.

Schr. Lila G. Boutilier, Capt. Arthur Casey, 17,000 haddock ,15,000 mixed.

Schr. Myrtle L., Capt. Hiram Young, 3,000 mixed.

Schr. Defender, Capt. Jere. Surette, 2,000 mixed.

The next largest shipment was that of Henry A. Annis, consisting of 109 cases, caught by the following vessels:—

Schr. Eddie James, Capt. John Sims, 6,300 haddock, 2,000 medium cod and 3,000 shack.

Schr. Nelson A., Capt. Nathan Annis, 6,500 haddock, 2,000 medium cod, 2,500 shack.

Schr. Viola A. Capt. Clarence Lennox, 2,200 haddock, 1,300 large cod and 1,500 shack.

Of course the principal feature of the month was the opening of the lobster season. The agitation on the part of some of the canners to have a close season declared on lobsters not of shipping size, came to nought and most of the factories have opened. No doubt, the others, too, will open in time. On December 15, the opening day, the weather was very rough and the fishermen could not get off to get their traps down. Hundreds had been set illegally, but nothing was gained by the owners, because the storm destroyed a large proportion of them, and rendered it impossible to get to the others. So severe was the weather that the first shipment of live lobsters made to Boston on the 16th consisted of but half a crate compared with 1,200 crates for the corresponding shipment last season. The second shipments on the 19th consisted of but 263 crates. No quotation was obtainable on the first half-crate, but the second shipment brought $25 for large and $15 for medium, as compared with $28 and $24 for the previous season. The packers also set a price of $2.00 per hundredweight on the small lobsters—quite a difference between that and last season's, when the price was $6 and $7. It has had one good result to us here, though, in that it enables us in Yarmouth to purchase this toothsome delicacy in the season at a reasonable price, as small lobsters are retailing at 60 cents per dozen. No doubt the local merchants pay the fishermen a little more than the canneries do, but as the market is limited it will not make much difference to their receipts in the long run.

To send fish from here to Scotland seems something like sending coals to Newcastle doesn't it? But it shows how tightly the North Sea is bottled up, even to the fishermen, when a large order from Aberdeen is sent here. The Gateway Fish Company Limited, was the lucky company to receive it, and it was filled with their celebrated Mayflower brand of threaded fish.

During the present month Elmir E. Prior, president of the Consumers' Fish and Cold Storage Company, died at his home in Wollaston, Mass. He was one of the promoters of the Consumers', and took a deep interest in its welfare. He was 54 years old and had been identified with the fish business all his life. At a meeting of the directors held subsequently, David H. Choate, of the P. H. Prior Company, Boston, was elected in his stead. This action will no doubt be ratified by the shareholders the annual meeting in January.

During the month, in addition to the fares enumerated which made up the record shipment, the following schooners also landed in the order as given:

	Lbs. Mixed.
Viola	5,000
Myrtle L.	7,000
Kernwood	30,000
Myrtle, L.	3,000
Lila G. Boutilier	30,000
Lucy A.	2,000
Lila G. Boutilier	5,000
Dorothy Smart	4,000
Lucy A.	2,500
Kernwood	2,500
Quickstep	7,000
Quickstep	15,000
Nelson A.	1,500
Nelson A.	3,000
Eddie James	6,500
Ronald B.	20,000
Eddie James	10,000

All these fares indicate that the fish are off here if the weather would only allow the vessels to get out.

Following are the exports up to and including December 19:—

Fresh Fish, cases	1,459
Halibut, cases	31
Smelts, boxes	438
Fresh Mackerel, barrels	83
Eels, barrels	191
Finnan Haddies, boxes	1,181
Pickled Fish, cases	178
Boneless Cod, boxes	3,399
Fish Waste, barrels	261
Salt Herring, barrels	826
Salt Fish, drums	926

Clams, barrels	241
Canned Lobster, cases	1
Pickled Cod, cases	104
Salt Mackerel, barrels	68
Cod Oil, barrels	28
Smoked Herring, boxes	20
Hake Sounds, barrels	17
Smoked Fillets, boxes	25
Scallops, barrels	38
Dog-fish Oil, casks	122
Live Lobsters, crates	263½
Fish Clippings, barrels	2
Smoked Kippers, boxes	12

To Havana:
43 drums dry salt fish.
To Rio Janeiro:
299 tubs dry salt fish.
To Panama:
85 drums dry salt fish.
To Brazil:
74 tubs dry salt fish.
To Costa Rica:
60 tubs dry salt fish.

* * *

Taking the year 1914 all through, there have been many bright spots and at the same time many disappointments. Not for a generation have so many men been engaged in the industry as there have been this year, and it has never been os easy to get men to go fishing. Formerly schooners short of men have laid here while the county was searched for hands, it being almost impossible to get a man in town to ship. Now the vessels can pick and choose from the numerous applicants received every time they come in port. A few boats have faithfully stuck to the work for years, but no vessels owned here have been used for some time in the trade. This year the few boats grew to several dozens, most of them fine large sloops, and as for vessels there has been quite a fleet engaged and a number of them are still engaged in the winter fishing. During the early part of the season the returns were good, but the dog-fish, striking in in such large schools during the summer drove many of the fishermen ashore. In fact, some hauled up their boats and they have been out of commission ever since. But taking it all through, the season has been an encouraging one. Up till the time war broke out, prices had been good; they have fluctuated considerably since, but the average has not been so good as before August. Fortunately we have got through the year with no casualties to either men or vessels beyond a few minor accidents. No lives have been lost and no vessel property destroyed. It has been an unusually strong year, and the gales have played havoc with gear—thousands of dollars being lost in that way. The past lobster season was almost up to the average, but the mackerel did not appear in the big schools expected. On the whole we have nothing to be ashamed of in the record of 1914. And now, standing on the brink of 1915, it looks as if there will be still more in the business next year. Already there is a big increase in the lobster fishermen. A careful estimate gives 104,530 traps set out along the south shore. Of this number there must be fully 25,000 off the Yarmouth coast. The weather is the most uncertain quantity they have to reckon with. Winter fishing is so much interefered with by bad weather that it is always a problem. The reduced prices will militate against the fishermen and we can only hope for an improvement later.

There is talk of one or two more schooners being added to the fleet, but it may end there. However, we hope not, as the more schooners we have the better we will be pleased.

There will not likely be any change in the mackerel trappers. The same three traps that set this year will likely do so next year, but the returns for the last few years have not been sufficient to induce others to go into the enterprise.

The exports during the past year have kept up well as will be seen by the following list:

Live Lobsters, crates	21,350½
Fresh Fish, cases	3,992
Halibut, cases	935
Cod Oil, barrels	90
Smelts, boxes	1,855
Eels, barrels	408
Salt Mackerel, barrels	977
Canned Lobsters, cases	8,376
Boneless Cod, boxes	41,950
Finnan Haddies, boxes	2,429
Salt Fish, drums	20,012
Pickled Fish, cases	2,781
Clams, barrels	4,277
Hake Sounds, bags	552
Dulse, barrels	7
Glue Stock, barrels	31
Cod Oil, barrels	28
Fish Waste, barrels	2,783
Salt Herring, barrels	5,475
Fresh Salmon, cases	671
Bloaters, boxes	2,173
Pickled Cod, cases	68
Cod Fillets, boxes	10
Fresh Cod, cases	15
Fresh Haddock, cases	9
Fresh Pollock, cases	22
Albacore, cases	600
Periwinkles, barrels	104
Dry Pollock, quintels	46
Fresh Mackerel, barrels	9,723
Scallops, barrels	45½
Sturgeon, cases	16
Fish Skins, barrels	576
Alewives, barrels	3
Swordfish, cases	263
Fish Oil, barrels	36
Butter Fish, barrels	3
Pickled Codfish, cases	10
Tongues, barrels	14
Dry Salt Cod, drums	1,376
FLresh Whitefish, barrels	13
Dry Haddock, quintals	140
Fish Clippings, barrels	36
Smoked Herrings, boxes	20
Smoked Fillets, boxes	25
Smoked Kippers, boxes	12
Dog-fish Oil, barrels	122

LUNENBURG, N.S.

(From Our Special Correspondent.)

Since my last report the market for Dry Fish has strengthened up quite a bit and a number of cargoes have been purchased by Halifax and local shippers at the price per quintal of about $6.50 for codfish, leaving about twenty cargoes or thereabouts, say in round figures one quarter of the catch still in the hands of the producers. The ideas of the holders above referred to are for even higher prices than

$6.50, and they appear to base their ideas on the short catch of codfish in all the producing centres, and the fact that the French Government has prohibited the export of all food stuffs, which of course includes fish, the latter fact having already had a tendency to strengthen prices in Newfoundland for the fish suitable for the Italian and European markets, thus relieving the West Indies market of a certain quantity of fish, wihch would otherwise have had to find an outlet there.

The result of the year's fishing will not be equal to that of last year, as the total catch was much smaller, both on the spring and summer trips. Still some of the vessels will have fine dividends, others not as much, and it is more than likely that all the vessels engaged will pay their bills.

The outlook for the next season is very encouraging, as all the present stocks will be worked off, leaving the markets in good shape for the new catch, and the fleet will probably be nearly equal to that of last year, and some of them will likely be going away early and fishing frozen bait as in the years past. It must be remembered, however, that any unexpected change in the present war situation would very quickly put a very different face in the position of affairs, but we do not look for anything of that kind to turn up.

NORTH SYDNEY, N.S.

The fishermen of Northern Victoria continue to reap an immense harvest from the industry, and with not a vestige of ice or other winterlike signs in sight, the imediate future, at least, has in store for them continued prosperity. Almost daily since last Wednesday the steamer Hilford, Capt. Thomas Ormiston, has taken cargoes here from Ingonish and vicinity, all of which was transferred on cars at the Terminus and shipped to the Ontario market. During the past week it is estimated that upwards of 150,000 pounds of fresh fish was shipped in this way from Northern Victoria County. In many instances individual fishermen netted $100 a day.—Herald.

SOURIS, P.E.I.

(Special Correspondence.)

With reference to fishing in this locality, herring fishing in the spring was only fair, so also was the cod fishing, and haddock fishing—about an average season. The lobster fishing was very good, prices were high and most of the packers got clear of their stock before the war broke out, thereby receiving full prices for same, but a great many of the shippers were caught with a lot of goods on the other side on which they are likely to meet with a considerable loss, as well as having to carry them over for some time.

LIGHT PRODUCING FISH.

It is well-known that certain kinds of fish in the sea are able to emit light. These fish are not very numerous, but they share in their phosphorescent power a feature which ranges through almost every class of the animal kingdom.

In the sea vast numbers of the smallest animals, the Protozoa, are in numerous instances phosphorescent, and produce a luminosity which is often widespread, and has created interest in all ages. When the sea is phosphorescent, every vessel cutting its way through the waves by night leaves a track of scintillating fire, and every wave that breaks produces the same brilliant effect.

Jelly-fishes or Medusae, are in many cases brilliantly luminous. Amongst the the sea-worms (Annelids) quite a number as they creep about on the bottom of the sea, glitter with phosphorescent rays, each joint of the narrow body apparently emitting light.

Among the colonies of Hydrozoa, often mistaken for plants or seaweeds, the small animals which compose these colonies are able also to produce luminosity, and one of the greatest authorities of life in the deep blue sea, Sir Wyville Thomson, of Edinburgh, declared that one of the most beautiful sights imaginable was that of a forest of these branching animals washed by the waves and every wave producing an emission of luminosity. Some of the shrimp tribe have light-producing organs, usually situated in the tail, and of course, insects, such as fireflies and glow-worms, are familiar to everyone for their brilliance on dark warm evenings. Amongst the higher animals, however, this light producing power is far less frequent. Some sharks possess it, and quite a number of the bony fishes, or Teleostei, have light-producing organs.—Prof. Prince.

ALASKA HALIBUT BEING SENT EAST VIA PRINCE RUPERT.

Halibut caught in Alaska waters by American schooners has commenced to find its way to the eastern markets through the port of Prince Rupert, Capt. D. McKenzie, master of the G.T.P. steamer Prince George said that the train which pulled out from Prince Rupert last Wednesday for the east carried two carloads of Alaska fish, consigned to Boston, Mass.

Vancouver and Seattle have been fearing for some time an inroad of this nature upon their fishing businesses. In the past the schooners have had to make the long voyage from the Hecate strait and Alaska fishing banks to either the Terminal City or the Sound port to discharge their catches. But now they can slip into Prince Rupert and have their fish rushed to the eastern markets, and thereby eliminate the two-day run to either of the southern ports.

This inroad into the business of Vancouver and Seattle, while not of any great force or strength at present, is bound to develop in the near future. Prince Rupert is already counting on a great business with the American and Vancouver schooners, and the G. T. P. has plenty of refrigerator cars on hand in order to handle the fish as rapidly as possible. Halibut can be landed in Boston from the banks via Rupert fully two days faster than by way of either Vancouver or Seattle, and naturally it is in better shape upon its arrival there.

The shipment of halibut which left Prince Rupert last Wednesday consisted of 47,200 pounds. Through Prince Rupert the Alaska fish goes in bond the same as from the southern Canadian ports, so that there is no advantage gained by the carrying of the catches south. The immense fishing opportunities of Alaska in common with those of the northern British Columbia coast will find in Prince Rupert the most advantageous route by which to ship to the markets of the east. The trade is but beginning.

It isn't always the winner who wears a winning smile.

Don't worry to-day; put it off till day after to-morrow.

THE PACIFIC FISHERIES

(Special Correspondence.)

Fishing on the Pacific has been rather quiet this last month, owing to the big run of salmon and other staple fish being over. There is sufficient fish being caught to supply the local and up-country markets, but we all want to see Canadians eat more fish, as it will be to the benefit of all concerned.

Smoked Fish.

Dealers in Vancouver ask for a sample barrel of mild-cured haddock, and if any of our eastern readers can supply this, information may be obtained from the office of the Canadian Fisherman, 912 Dominion Bldg., Vancouver, B. C.

As anticipated, smoked fish is becoming more and more popular with this trade, and now with the varieties we can put up, we are seeking expansion of markets and think it is a matter of only time and educating people, before there will be a very large trade in this particular line.

Pickled Fish.

Pickled fish is very scarce from Alaska to Puget Sound. As our local trade does not consume much of this pack, consequently very little is put up during the season. Many fishermen and dealers have the idea that there is a market somewhere for these goods and they are right in their assumption, but until we can give the trade goods packed according to the rules laid down by the New Pickled Fish Inspection Act, we cannot hope to do much.

There were some herring packed and shipped under the rules laid down by the above Act this past season, and many more barrels would have been shipped but for the fact that the particular herring required were very scarce this season. However, our fish have had an entry to the markets we were seeking and have been most favorably reported on, and prices realized that would surprise herring packers in Eastern Canada.

Salmon.

About the only fish offering now in the fresh state are Steelheads and Red-Springs. Stocks of frozen fish, such as Cohoes and Qualla are very limited, and stocks are not likely to be more than the trade will require.

Herring.

Shipments of dry-salt Herring to China have been somewhat larger of late and better than expected, in view of the general financial condition in the Orient. Herring used for this trade are a small Nanaimo fish, which are used for practically nothing else. The local market has been supplied with fresh herring, but only just sufficient to take care of orders and to supply the smokers. In fact fields, outside of the usual ones, have had to be cabled to to fill requirements.

Halibut.

Supplies are very limited and any fresh goods offering are eagerly bought up at prices considerably beyond that of last year. Of course there are one or two days in the course of a month when a large centre like Seattle will have several boats in at the same time, and this tends to lower the market a little but only temporarily.

Frozen Halibut is going to be gilt-edge stock this year, and "carries-over" ought to be very limited.

Cod-Fish

Handlers of Boneless Fish are buying supplies this year, more and more from San Francisco and Puget Sound, although they all believe in the slogan (Made in Canada), still when it comes down to placing orders and prices, they seek every time the best prices they can. The above packers being long on Codfish this year, and having three outlets considerably limited, have been quoting very cheap fish up here. I believe that one San Francisco firm has been placing orders for 2 lb. boxes of Boneless fish at 1 cents per lb. duty and freight paid Vancouver.

Shell-Fish.

Owing to the house-wife having made up her mind to buy only necessities this year, the sale of oysters has been considerably less than that of other years.

Crabs and local oysters are in fair supply. The local oyster being a small one is very suitable for such "Hors D'Oeuvre" as Oyster Cocktails, a most delicious appetizer.

Winkles are associated with English Bank Holiday trippers. We have all seen the usual stall at these popular seaside resorts, where one may buy these winkles and have thrown in a large pin to eat them with. Winkles are now to be had on the Pacific Coast and fine fat ones too. From personal experience, I know that winkles are nice dainty eating, and for this reason if any readers of the Canadian Fisherman care to have samples of these, I will be pleased to put them in touch with the dealers.

Mild Cured Salmon.

The situation remains unchanged, except that two New York houses have had buyers in the market, and orders have been placed for a few cars at prices considerably below that of ordinary esasons. As I said before the mild-cured salmon business has been affected in the same way as the lobster business on the Atlantic, owing to the fact that Germany is the largest importer of this class of goods.

Canned almon.

Sockeyes in first hands are scarce and prices very firm. Cohoes will remain popular and sales show no

sign of decreasing. With the winter now on us, sales of canned salmon should be large, and all stocks should be materially reduced.

Personal.

We have been favored by a visit from Captain H. Anderson, of Digby, N. S., Captain Anderson is as everybody knows the superintendent of the Maritime Fish Corporation, Limited, and his name on boxes of haddies is an assurance that the goods are really what the brand states them to be, i. e., "Gilt-edge."

When we get an Atlantic fisherman on this Coast we try to hold him, but in most cases the home-ties are too strong to be broken, and we feel that it will take a lot of persuasion to get Capt. Anderson to abide with us.

We have been very interested in Capt. Anderson's visit, and we trust that he has enjoyed his trip to the Coast.

Wholesale Fish Prices Vancouver Market.

SMOKED FISH

	Per Lb.
Finnan Haddies, Atlantic 15s. and 30s.	.09
Fillets, Atlantic 15s	.10
Bloaters, Atlantic 20s.	.6
Kippers, local	.07
Salmon	.15
Halibut	.12

FROZEN FISH

Salmon, Steelheads (round)	.09
Salmon, Cohoes (round)	.06½
Salmon, Qualla (dressed)	.05
Halibut	.08
Smelts	.05
Black Cod, Alaskan	.08

FRESH FISH.

Salmon Steelheads	.09
Salmon Red Springs	.10
Salmon White Springs	.05
Halibut	.08
Cod	.06
Smelts	05
Herring	.04
Soles	.05
Whiting	05
Skate	.03
Perch	.06
Rock Cod	.05
Red Cod	.03
Bass	.06
Black Cod, Alaskan	.08
Shad, Columbia Rier	.08

PICKLED FISH.

Salmon (Sides), barrel 200 lbs.	.10
Alaskan Black Cod	.08
Pacific Whole cod	.07
Hering, local	.06
Herring, Atlantic	.05

PREPARED FISH.

Acadia No. 2 Boxes	.14
Acadia, Strips	.13½
Acadia, tablets	.14
Bluenose	.09½
Pilot	.08½
Nova Scotia Turkey	.07½
Pacific Boneless	.08½

SHELL FISH.

Crabs (Boundry Bay)	doz.	$1.00	$1.20
Shrimps	per lb.	.12	.20
Clams			.03
Clams (Shelled)	per gal.	1.25	
Oysters Eastern (Shells)	per doz.	.25	
Oysters Bulk	per gal.	2.85	
Oysters Olympia (bulk)	per gal.	3.25	

CANNED SALMON.

A Review of the 1914 Pack on the Coast.

The year 1914 has been in many ways a remarkable one, but in the canned goods line salmon is the star feature, according to Joseph Durney, of the Griffith-Durney Company, who says:—

"While early in 1914 first hands were cleaned up on everything except sockeyes and pinks; dealers and retailers were carrying fairly good stocks, hence there was very little interest shown in salmon of any grade up to April when buyers began to purchase more or less Alaska reds and pinks. The year 1913 closed with all grades selling at opening prices, excepting Alaska red $1.20 and pinks 65c, but about the middle of April the market commenced to firm up, and by the first of July Alaska red was selling at $1.25 and Alaska pink at 70c. By the middle of July, owing to heavy consumption, red had advanced to $1.40 and pink to 80c, other grades advancing proportionately.

"Therefore, the trade generally was prepared for the opening prices of 1914, and within thirty days after they were announced 75 per cent of the pack was sold at prices from 25c to 45c per dozen over the opening prices of the previous year.

"Considering the size of the current year's pack, this advance in price is one of the reasons that makes the year 1914 a remarkable one, and the fact that we have broken the record for a short year makes it all the more remarkable; for while 5,000,000 cases is the average pack for five years, this year's pack will come very close to 6,000,000 cases.

"When we take into consideration the pack and the present situation we have every reason for calling the year 1914 a remarkable one. As for example, chinooks are practically sold up, sockeyes are in very light supply and, with exception of two factors, Alaska red is cleaned up. Pinks are almost a thing of the past. Packers are entirely out of pinks, the stock on the Coast consisting of a few thousand cases owned by second hands. The only grades that are in good supply are medium reds and chums; but, as other grades are so closely cleaned up, the stock of these two grades, in our opinion, will not be sufficient to supply the trade until the new pack is ready for shipment.

"Another thing that makes the year 1914 remarkable is the fact that domestic buyers have all purchased conservatively. There is not a dealer in the United States who has bought his usual amount or is carrying sufficient salmon of any grade to last him until the new pack is ready for shipment.

"The cotton situation in the Southern States prevented packers from securing their usual Southern business, but this lack of trade in the South and conservative buying in the North was more than offset by the export trade, hence with the exception of medium reds and chums the market is more closely cleaned up than it usually is at this time of the year.

"From statistics compiled from all quarters we estimate the 1914 pack as follows:—

	Cases.
Alaska	4,000,000
Puget Sound	650,000
British Columbia	1,110,000
Columbia River (Spring and Fall)	500,000
Outside rivers	150,000
Total	6,410,000

SEA WEED AND FISH SCRAP FERTILIZER RESOURCES OF THE U.S.

In discussing the fertilizer resources of the United States, the Bureau of Soils, U.S. Department of Agriculture, in its annual report for the fiscal year ending June 30, 1914, says in part:

Fish Refuse and Garbage.

Following up previous investigation of the possibilities in the fish-scrap industry of the Atlantic coast, already developed, a study has been made of the possibilities on the Pacific Coast, including Alaska. The waste fish and fish refuse approximate annually 120,000 tons and can be made to yield about 12,000 tons of scrap (fertilizer) and 3,000,000 gallons of oil, worth perhaps, $1,800,000.

The Pacific Kelp Beds.

The most promising American source of potash is the annual crop of giant kelps on the Pacific Coast. Working maps have now been made of nearly all the commercially available kelp beds from the Cedros Islands to the Shumagins, off the Alaskan coast. The area of these beds aggregates nearly 400 square miles, capable of yielding annually, either as dried kelp or as pure potassium chloride, over six times the present consumptoin of soluble potash salts in the United States, or something more than the world's present total production. The development of a great American industry, based on the conservation and utilization of this important national resource, of fundamental importance to the national agricultural interests, seems now to be a matter of time only.

The best thing a knocker can do for his home town is to purchase a railway ticket one way and use it.

A woman is never popular with a man who knows less than she does.

A word to the wise doesn't suffice any more: they want a surety bond.

When some people have a little time to waste they annoy others who haven't.

Even a painstaking dentist doesn't take away the pain of his victims.

He is a wise candidate who sticks to his regular job until he gets into office.

Telegraph operators do business on a sound basis, even if it is done on tick.

Many a man who paints the town red would object if his wife painted her cheeks.

Don't wait until you are past three score and ten before beginning to make up for lost time.

SARDINES ON THE BATTLEFIELD.

Their Strategic Value.—Bait for Prisoners and Oil for Guns.

Whatever other hardships may fall to the lot of the men who are fighting in the Allies' trenches, there is happily no ground for complaint as to the quantity or quality of the food served out to them. An important item on the menu of the French infantry in these cold days is tinned sardines, and a couple of stories published here would seem to suggest that the sardines under certain circumstances may possess a strategic as well as a calorific value. At several points on the battle line, notably in the north and east, the French trenches are within 50 yards or so of those held by the Germans, and not infrequently in the intervals between active hostilities an interchange of more or les uncomplimentary remarks takes place between the opposing front lines.

At one such place a week or so ago a French soldier shouted across to his German vis-a-vis the information that he and his comrades were making a satisfying meal on a "mixed grill" of cheese, sausage, and sardines. The German bluntly retorted that the Frenchman was a colossal liar. Whereupon, an empty tin was thrown at him for evidence. He admitted the weight of it, but suggested that it would have been better had the tin been a full one.

A few seconds later a tin fell a little way in advance of his trench, and the German who was half-famished and careless of consequences, began to clamber after it, only to find that the Frenchman had tied a string to it, whereby they were able to keep it out of his reach.

A roar of laughter went up at his discomfiture, and a voice adjured him that if he wanted sardines he must come to the French lines to eat them. The French officer who controls the stores says that the "Boche" hesitated, and then came and ate, after which he was taken to the commander.

On another occasion in the Vosges a French "75" began to work badly at the moment of a German infantry attack. The battery commander called for oil, but there was none to be had, except at a spot half a mile to the rear, and by the time it had been fetched from that distance it would probably be too late. At this juncture one of the gunners bethought him of two tins of sardines sent him from home. They were hurriedly wrenched open, and the oil used for lubricating the gun, which was soon in action again. Thus was the situation saved by a savoury, and the battery supped on the residue.—Fishing News.

People are unnecessarily active when they stir up trouble.

A man isn't necessarily polished because he casts reflections.

Some men can't even head a procession at their own funeral.

Even the ice man may make it hot for you if you don't pay up.

It's easier to purchase a flying machine than to sprout wings.

The louder a man talks the more he reminds us of a bass drum.

The man who sits down and hopes for the best doesn't get it.

Don't have too little confidence in yourself, or too much in others.

AN IMPROVED AND PRACTICAL METHOD OF PACKING FISH

By A. SOLLING,

Commissioner to the Danish Government Fisheries Department, London, England.

(Document 659, U.S. Bureau of Fisheries.)

It was about forty years ago that ice was with good result first used on board English fishing ships for packing fish. Before that time fishing ships made only short voyages, to insure the fish reaching market in a good condition. But it was necessary to bring in the best and firmest fish only, those that could be kept fresh the longest time, such as soles, turbot, brill and halibut, which fish retain the name of "prime fish." Other kinds of fish, such as plaice, cod, and haddock, could not be brought in, as they would not keep and so had to be thrown overboard as useless.

In the eighties, when steam trawlers were introduced for fishing purposes, the fishermen went away for ten to fourteen days, sometimes three weeks, for their catch, and it was then necessary to make provision on board for a large quantity of ice, so that the catch might reach port in good condition. In spite of this precaution, however, a large quantity of fish caught at the commencement of the voyage was, and is still, landed in a very poor and stale condition, especially during the heat of the summer. People seem to enjoy iced fish, even though it has lost its flavor, believing that there is no possibility of procuring it otherwise. But when they have once tasted good fresh fish, cooked immediately after being caught and killed, they lose their taste for iced fish at once.

It was after seeing the poor treatment to which fish is exposed in England, from the moment it is caught —carried in ice in the trawler's hold, discharged and repacked, and finally laid out on the fishmonger's marble slab, occasionally being sprinkled with lukewarm water to make it shine—that I was led to experiment for a means of packing fish for transportation and keeping it in a better and sounder condition.

Many different experiments have been made in an effort to find the best and most practical means of keeping fish fresh and sound for a lengthened period, but all these methods, whether with or without the use of chemicals, have been found wanting in efficiency, the fish losing its fine appearance, and more especially its flavor.

Freezing is a good and sound method of preserving, but it is difficult to keep the fish frozen in hot weather on long distances, as for instance on railway journeys. Moreover, on being thawed the fish lose their flavor, and they soon decompose on exposure to the deleterious influence of the air. Packing in ice is a method in very general use for transportation, but as the fish is constantly in close contact with the ice and ice water, this method also has disadvantages. The idea in using ice is, of course, to keep the temperature low, thereby preventing decomposition as long as possible. But the exposure to ice and ice water destroys the flavor of the fish; they become stale, and when exposed to the air they quickly decompose, especially during mild weather.

The chief thing to be kept in view in preserving food is to keep it as free as possible from harmful bacteria and from the surrounding air charged therewith. It is, furthermore, necessary to prevent the ice water, which is also more or less full of bacteria, from coming into direct contact with the fish, but at the same time using the low temperature produced by the ice to prevent the further development of the bacteria invariably contained in the fish.

In using my method of wrapping fish in improved fish-wrapping paper and afterwards laying it in crushed ice, the latter in pieces about the size of a walnut, the air is excluded and the ice water prevented from coming in direct contact with the fish. The low temperature of the ice is acting directly on the fish through the paper, and by these means the fish is kept sweet and fresh for a longer period than is otherwise possible, the bacteria of decomposition being thus prevented from developing.

The chief point to be observed in this method of packing fish is that the fish be gutted and bled and the gills cut out as soon as possible after the fish are caught. The sound, found in some species, must be cut lengthwise, to insure the removal of all blood particles underneath. Further, the fish should be cut open so far behind the vent that all accumulations of blood may be easily removed. They are then washed and scrubbed inside and out with a stiff brush in clean salt water, or in a solution of fresh water with 4 to 5 per cent of salt, until all blood specks have been removed, then they are laid aside for a short while to allow the blood and water to drain off, and very special care must here be taken that no water be left remaining on the inside. Each fish is then carefully wrapped in the wrapping paper, which is cut square, each dimension being at least one and a half times the length of the fish.

To wrap, place the fish across the nearest corner of the sheet, roll it over very firmly, turn in the two side corners, and roll the package over again until the fourth corner is reached, then tie with a piece of twine.

Objection might be raised that too much trouble is involved in treating fish in the above manner, and that it take too much time. But the time, trouble, and small expense incurred are very soon repaid by the higher prices which are obtainable for the fish, owing to their far better appearance, and to the very important fact that they will keep fresh after fish that have been treated in the old way have spoiled. The fishmonger, too, will soon find his profit in having for sale fish which not being sold to-day will turn out just as fresh eight or fourteen days hence, even in the hottest weather. It may be remarked that all kinds of fish may not profitably be treated according to this method, but prime fish, such as soles, turbot, brill, halibut, and haddock, perhaps cod and plaice, will fetch a much higher market price if so treated.

The more expensive fresh-water fish, such as salmon, carp, and trout, are always shipped in ice without being gutted, but even they would have a far better

appearance if wrapped in this paper instead of being exposed to the influence of air and ice water. I would here, however, draw attention to the fact that the fundamenta lfeature of my method of wrapping fish is that the fish be gutted, that the entrails and the gills be removed, and the fish thoroughly washed.

The first important experiment with the method here presented was carried out in October, 1905. The necessary fish were caught by special permission of the Danish Government in the steamer Thor, which otherwise was engaged in international sea investigations. For the purpose of comparison the fish were packed in four different ways:

1. Gutted, wrapped in paper, and laid in ice.
2. Not gutted, wrapped in paper, and laid in ice.
3. Gutted and, without paper, laid in ice.
4. Not gutted and, without paper, laid in ice.

Altogether 147 fish were packed in these different ways. The flat fish included soles, turbot, brill, plaice, lemon soles, and whitches; the round fish were haddock, cod, whiting, hake, and gournard.

On October 6 and 7 the fish were packed, and on October 17 the method was explained and specimens of the different kinds of fish were shown to people interested, including press representatives, fishmongers, and others well acquainted with such matters. The following results were revealed:

1. The fish gutted and wrapped in paper and ice were perfectly white and firm, without any smell whatever, the skin was not discolored, and most of the fish had retained the stiffness of death.

2. The fish not gutted but wrapped in paper and ice were in most cases damaged in the inside.

3 and 4. The fish gutted and not gutted (round) and not wrapped in paper but placed in direct contact with air and ice water were soft and stale and the skin discolored.

On October 21, fifteen days after having been wrapped, some of the fish packed under method No. 1 were taken out and examined. Seven different kinds, after being boiled, were found perfectly fresh and to have retained their flavor in full.

Another test, the following spring, gave results as follows:

On March 26, 1906, three halibut weighing about 28 lbs. each were packed in Grimsby, according to my method, and the same day sent by steamer to Copenhagen in a box containing ice. To afford a comparison, a fourth halibut, treated exactly as the others, except that it was not wrapped in paper, was inclosed in the same box.

On April 9, after having been wrapped up for fourteen days the first halibut was taken out, and I was informed (not being present myself) that it was found perfectly fresh and without any discoloring of the skin at all. The halibut which had not been wrapped in the paper and therefore had remained in direct contact with the ice was discolored on the skin and was quite stale.

On April 20, after being wrapped for twenty-five days, the second halibut was taken out in the presence of several well-known gentlemen, when I also was present. It was found fresh, firm, and white in the flesh, and, after being cooked, to have retained its full flavor.

On April 26, after being wrapped for thirty-one days, the third and last halibut was taken out, and found to be firm and white and also without any discoloring of the skin. It was tasted by several people, myself included, and found to have retained its full flavor.

A third practical experiment was carried out by order of the Royal Greenland Trading Company, of Copenhagen. Thirty-nine halibut caught in Davis Strait were treated according to my method on August 12, 1906, and forwarded in boxes filled with ice in the steamer Hans Egede, which landed them at Peterhead on September 1. The fish, in the boxes, were sent by rail to Grimsby, where they arrived in splendid condition and were sold on September 3, fetching a comparatively high price.

Upon the basis of the different experiments, I can safely affirm that by wrapping fish in this manner and treating them as described they can be kept fresh for a much longer period than is possible by the old method. Further, in consequence, the fish will prove to be a far better and more healthy food when treated in this manner than when kept in direct contact with air and ice water.

I would mention in conclusion that my method of packing need not be limited to fish. Meat also will keep during the hottest weather when wrapped up perfectly fresh and laid in ice; and for experiment lobsters boiled in Canada have been sent to London. After being boiled and cooked, the lobsters were wrapped in the paper and sent in cases with ice, as a result retaining their full flavor for about fourteen days.

The paper I use is called vegetable parchment, but I prefer to call it simply fish wrapping paper, for by employing this name I am able to retard the use of bad imitations with the consequent poor result and possibly damage to the reputation of improved method of packing. The paper is at present to be had only in London. It is of two weights, the heavier parchment a dark brownish gray, the lighter weight a yellowish brown. The dark heavy paper, for wrapping large fish, such as halibut, will shortly be made in sheets 5 feet square. The yellow paper, for wrapping smaller fish, is to be had in sheets 28 inches square.

COMMENTS ON COMMON THINGS.

The world is a cage in which humanity is tamed.

The nude truth sometimes needs an immunity bath.

Your friends will smile if you let your money talk.

What married man isn't fond of his wife's husband?

Why not quit seeking a position and look for a job?

Some detectives try to disguise their breath with cloves.

The mule that gets in the first kick usually wins the scrap.

No man is so illiterate that he cannot teach others something.

A man's house is his castle—until he puts it in his wife's name.

When a poet gets up in the world he moves down from the attic.

How particular is a bald man concerning the care of his hair!

No real hustler is satisfied with the things that come to those who wait.

A little brief authority for a few dried apples will puff a small man up to the limit.

If you would be regarded as wise, all you have to do is hand people the advice they want.

It may be more blessed to give than receive, but most of us are willing to let the other fellow have the blessing.

PRINCIPAL CONTENTS

THE CANADIAN FISHERMAN

January—December, 1914

Page.

Atlantic Fisheries of Canada, Non-Progression of, (J. J. Cowie) 167
Atlantic Fisheries, History of, (Colin McKay) 325

Boston Fish Dock, New, (Frederick Roche) 133
Beef vs. Fish 228
Black Cat, The—A Yarn of the Fishing Fleets (F. W. Wallace) 276

Carp, German 6
Casualties for 1913 9
Co-operation in Fishing Industry (Colin McKay) 77
Caviare, Canadian (Dr. Breck) .. 96
Canned Fish Trade in Great Britain 119
Canadian Fisheries, Legal Position of, (L. H. Martell) 136
Curing Cod, Labrador Rules 279
Canso as a Fishing Centre (Cecil Boyd) 329

Dogfish, Value in 33
Dogfish, What shall we do with 193
Dogfish and Sea Mussels as Food 253
Digby as a Fishing Port, (Roy Whynacht) 231
Deep Sea Fishing in Great Britain 273

Explosive Sounds and Effect on Fish (G. H. Parker) 97
Education for Fishermen 130
Education, Technical, for Fishermen (Colin McKay) 102
European War and Canadian Fisheries 227
European Situation and Pacific Fisheries 248

Fisheries, Success to the 5
Fisheries Statistics, Monthly—
9, 46, 101, 132, 162, 196, 229, 263
Fisheries in History.. 99
Fisheries Act, New (L. H. Martell) 104
Fisheries Treaty, (A. E. Howard) 155
Fisheries of Grand Manan (Colin McKay) 177
Fisheries Information Bureau (Colin McKay) 208
Fisheries Exhibit, Canadian National Exhibition 264

Page.

Fisheries of British Columbia, Report on, ... 316
Fishing Industries of Canada (Prof. E. E. Prince) 12
Fishing, Scientific 322
Fisherman's Weather Rhymes .. 24
Fisherfolk (Cecil Boyd) 75
Fisherman and Buyer (F. J. Hayward) 172
Fish Culture in Canada (W. A. Found) 51
Fish Waste, Utilizing of, (J. W. McGrath) 236
Fish Industry in Canada, (F. J. Hayward) 309
Finnan Haddie, Biography of (Roy Whynacht) 175

Gospel of Clean Fish 43
Grand Trunk Railway and Pacific Fisheries 62
Great Lakes Fishing (A. A. Kirby) 189
Germany's Fish Trade .. 261, 262, 263
Gaspesia, Fisheries of (Alfred Pelland) 303

Herring, Life Story of, ... 39
Herring and Mackerel Fisheries in Canada (C. H. Whitman) .. 61
Herring, British Columbia's Wealth of, (F. J. Hayward) .. 217
Herring, King of Fish Foods 275
Halibuter, Log of a High Line (F. W. Wallace) 20, 54, 78
Halibut Fisheries of Canadian Pacific (A. E. Howard) 235
Halibut Fisheries of Alaska 270
Halibut, Life History of, (W. F. Thompson) 327
Hints for Motor Boat Fishermen 41
Helping the Fish Business in Canada 71
Hospital Ship for Fishermen 72
Hudson Straits, Fish and Fisheries of (T. Tanner) 76
Haddocking on Brown's Bank, (F. W. Wallace) 140
Harvest of the Sea, (Ernest Mc Gaffey) 204
Harmony -- Halibut Fisherman's Union 249

Imports of Fish 295

Lockeport, N.S. (Colin McKay). 108

Page.

Lent Fish Trade in Montreal (J. A. Paulhus) 112
Log of a Record Run (F. W. Wallace) 173
Lunenburg and its Fisheries (Miss A. G. McGuire) 198
Louisburg as a Fishing Port (L. H. Martell) 211
Lobster, Save the, ... 129
Lobster Fishery in Danger (Colin McKay) 234
Lobster on Firing Line 321
Lobster Situation in Nova Scotia 326
Lobster Fishing, Should it be prohibited during 1915 (L. H. Martell) 336

Motor Engine in Fishing Industry.. 44
Motor Boat Notes 95
Motor Engine in Fishing Vessels 195
Motor and Sail (Cecil Boyd) .. 238
Modus Vivendi License (L. H. Martell) 73
Mackerel Fishery of Canada (Wesley Frost).. 105
Moving Pictures and the Fish Business 234
Mosquito Fleet of the Pacific (F. J. Hayward) 185

Northern Fishing Grounds, New 6
Northern Lakes, Fishery Resources of 93
Naval Volunteer Reserve. 194
Northern Waters (Ernest McGaffey) 233

Oyster Fishery of Prince Edward Island (Dr. J. W. Kier) 237
Oyster Leases and Laws Relating Thereto (L. H. Martell) .. 268
Oysters and Lobsters of Richmond Bay (D. K. Currie) .. 118

Prince Rupert, A Future Grimsby 82
Port Arthur Fish Hatchery .. 93
Pickled Fish Inspection Act (L. H. Martell) 163
Packing of Fish (C. D. Cliffe). 179
Pacific, A Whisper from the, (F. J. Hayward) 246

PRINCIPAL CONTENTS---THE CANADIAN FISHERMAN

January — December, 1914 — Continued

Page.

Pelagic Sealing Industry (L. H. Martell) 297
Port Stanley and its Fishing Industry (Miss Nettie Berry) .. 344

Reducing Living Expenses, Fish as a Factor in 294

Supply Question and a Remedy (Colin McKay) 48
Swordfish, The (Andrew Halkett) 49
Smoking Haddocks, Scotch Method (Dr. H. M. Smith) 111

Page.

Selling End of the Fish Game (A. E. Howard) 202
Salting and Pickling Surplus Sockeyes 210

Technical Training for Fishermen (Colin McKay) 135
Tuna Canning (F. J. Hayward) 122

Who's Who in the Fishing World:
Hon. J. D. Hazen 25
Prof. E. E. Prince 59
W. A. Found 84

Page.

Andrew Halkett 110
A. H. Brittain 146
J. J. Cowie 165
F. T. James. 197
W. J. Guest 242
D. J. Byrne 308
H. B. Short 335
Whitefish Hatcheries and Statistics 71
Wholesale Fish Market for Vancouver, B.C. 34
Warfare and Fishermen 310

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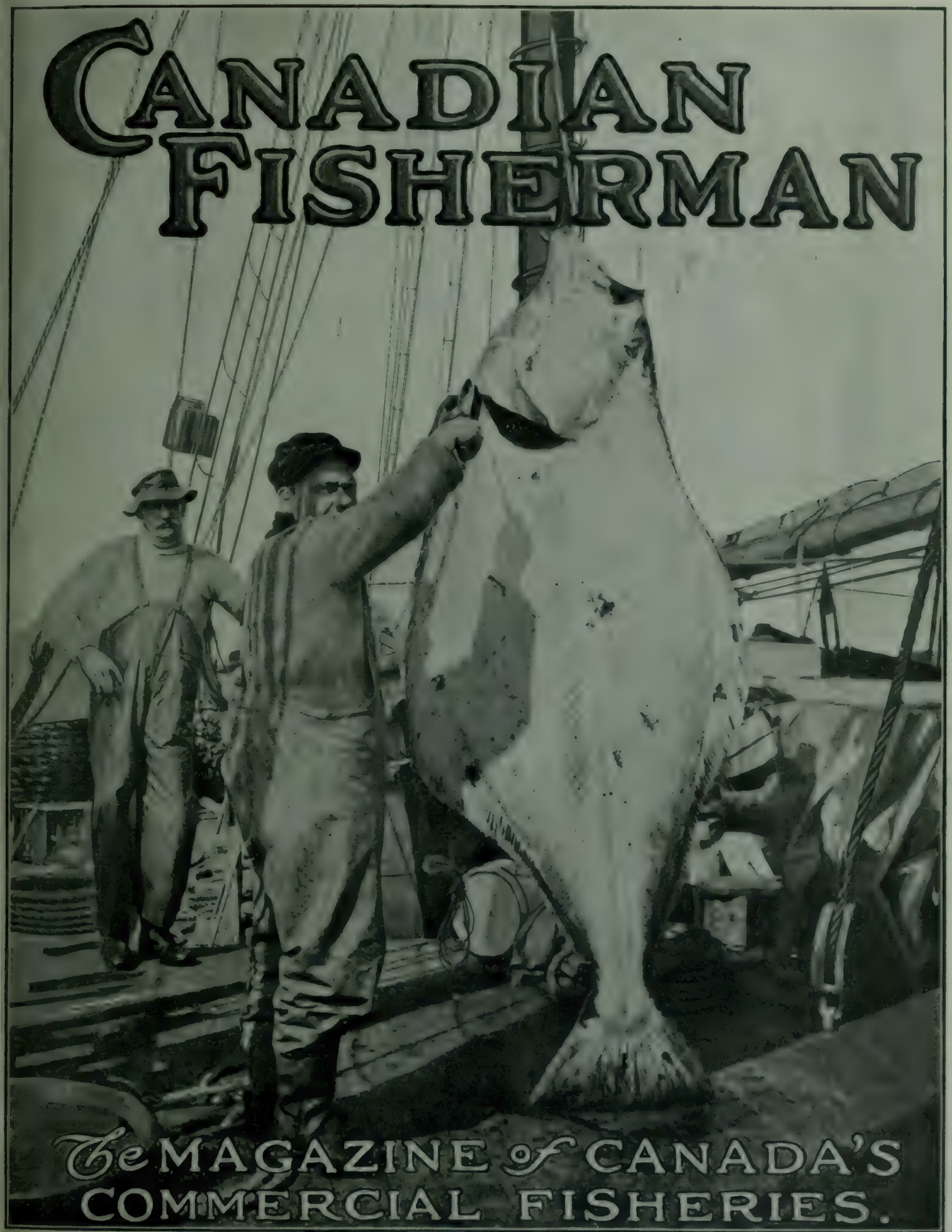

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On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license

To The Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to--

THE MINISTER OF COLONIZATION,
MINES AND FISHERIES OF THE PROVINCE OF QUEBEC

Department of Marine and Fisheries

FISHERIES:

In addition to the full statistics of the Fisheries which are published yearly in the Annual Report, the Department issues monthly bulletins containing statistics of the sea fisheries and general information in regard thereto. Copies of these will be sent free to any applicant.

The value of the Fisheries of Canada is now about $34,000,000.00 annually.

The demand in the home markets for fresh and mildly cured fish, is expanding very rapidly. The Department pays one-third of the express charges on less than car-load lots on all shipments of such fish from the Atlantic Coast to points as far west as the eastern boundary of Manitoba, and from the Pacific Coast, as far east as this boundary. Over 1,000 tons more fish reached Montreal for use there and distribution to other points from the Atlantic Coast, under this arrangement last year than the year before. The growth has been equally satisfactory from the Pacific Coast to the Prairie Provinces.

Close Seasons for Fish in Force on December 1st, 1913

Kind of Fish:	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.
Bass (Achigan)	.....	.....	.....	1 April to 15 June.
Maskinonge	.....	.....	.....	15 April to 15 June.
Ounaniche	.....	.....	.....	1 Oct. to 30 Nov.
Oysters	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.
Quahaugs	Oct. 1 to May 10 and July 1 to Aug 31.	Oct. 1 to May 10 and July 1 to Aug. 31.	Oct. 1 to May 10 and July 1 to Aug 31.	.....
Pickerel	.....	.....	.....	.....
Salmon (netting)	Aug 15 to March 1.	Aug. 15 to March 1.	.....	April 15 to May 15.
Salmon (angling)	eAug. 16 to Jan. 31.	Sept 16 to March 31.	.....	Aug. 1 to April 30.
Smelts	fApril 1 to July 1.	fMarch 1 to June 30.	fApril 1 to June 30.	Sept. 16 to April 30.
Sturgeon	.....	June 1 to July 1.	.....	.....
Speckled Trout	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to March 31.	June 1 to July 1.
Salmon Trout	.....	.....	.....	Oct. 1 to April 30
Whitefish	.....	.....	.....	Oct. 15 to Dec. 1.

Kind of Fish:	Ontario.	Manitoba.	Saskatchewan.	Alberta & British Columbia.
Bass (Achigan)	a15 April to 15 June.	.....	.....	.....
Maskinonge	15 April to 15 June.	.....	.....	.....
Ounaniche	.....	.....	.....	.....
Oysters	.....	.....	.....	.....
Quahaugs	.....	.....	.....	.....
Pickerel	cApril 15 to May 15.	April 15 to June 20.	dApril 1 to May 15.	dApril 1 to May 15.
Salmon (netting)	.....	.....	.....	.....
Salmon (angling)	.....	.....	.....	.....
Smelts	.....	.....	.....	See regulations.
Sturgeon	.....	gMay 15 to June 15.	gMay 15 to June 15.	gMay 15 to June 15.
Speckled Trout	Sept. 15 to April 30.	.....	.....	.....
Salmon Trout	hNov. 1 to Nov. 30.	.....	.....	.....
Whitefish	hNov. 1 to Nov. 30.	Sept. 15 to Nov. 19.	iSept. 15 to Dec. 15.	iSept 15 to Dec. 15.

a—Except in Lake Erie west of Pt. Pelee and around Pelee Island, where close season is May 25 to July 15.
b—Except on leased areas, where close season is from 1 July to 31 Aug.
c—No close season in St. Clair River and off Lambton County.
d—Except in waters north of or intersected by 54th parallel north lat. between eastern boundary of Saskatchewan, and 109th meridian and in waters intersected by or north of 55th parallel n. lat. west of this meridian to western boundary of Alberta, where there is no close season.
e—Except in Cape Breton Island, where close season is from Sept. 27 to May 31.
f—Bag-net fishing season Dec. 1 to Feb. 15; gill-net fishing season Oct. 15 to Feb. 15. Licenses required for bag-nets or gill-nets.
g—Sturgeon fishing prohibited until Jan. 1, 1916.
h—No close season in Lake Erie.
i—Except in waters specified in (d) where close season is from 1 Oct. to Nov. 30.
For British Columbia See Regulations.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA, THE SCIENCE OF THE FISH CULTURE AND THE USE AND - VALUE OF FISH PRODUCTS -

F. WILLIAM WALLACE
EDITOR

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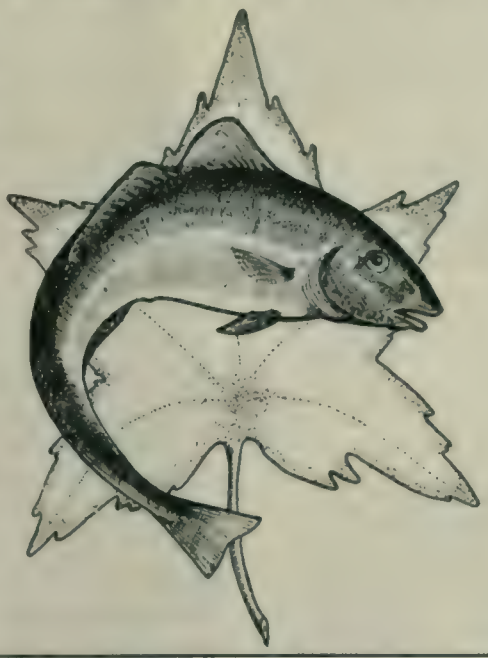

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Vol. II. MONTREAL, FEBRUARY, 1915 No. 2

CANADIAN FISHERIES ASSOCIATION

A MOST IMPORTANT MOVEMENT FOR THE DEVELOPMENT AND IMPROVEMENT OF CANADA'S FISHING INDUSTRY

For some time past, a number of persons interested in various branches of Canada's fishing industry—fishermen, distributors, and retailers—have endeavored to promote an Association upon organized lines for the better understanding and development of the great national resource of the Fisheries.

A meeting was held in Montreal recently for the purpose of discussing ways and means for the promotion of such an organization, and the whole-hearted enthusiasm of those who attended almost guaranteed the necessity and assured success of an Association upon lines laid down as follows:—

The objects for which the Association shall be established are:—

(a) The protection of the interests of Vessel Owners, Fish Curers and Packers, Fish Merchants, Boat Owners, Fishermen and all persons engaged in the production and distribution of the Fishing Industry of Canada and allied industries. The legal enforcement of their just claims, the due representation of their interests and requirements, the promotion or opposition for their benefit of legislative measures, and the promotion of a co-operative spirit among all engaged in Canada's Fishing Industry for their mutual benefit.

(b) The securing of just and fair rates for the transportation of fish, the enforcement of prompt deliveries and the reduction of high rents and tolls.

(c) The promotion of improvement in Fishing methods, curing, packing and transportation; also in harbor accommodation, navigational and other aids for fishing.

(d) The prevention of frauds upon and by those engaged in the several businesses mentioned in Clause (a) or any of them.

(e) The collection and circulation of statistics or other information relating to the several businesses mentioned in Clause (a) or any of them.

(f) The organization and dissemination of information of an educational nature among producers, distributors, retailers and consumers to the benefit of the industry in general.

(g) The consideration of all general questions which affect the interests of those engaged in the several businesses mentioned in Clause (a) or any of them, or which in any way relate to the Sea and Inland Fish Trade or Fisheries of Canada, and the carrying out of the decisions arrived at.

Copies of the proposed By-Laws and a letter outlining the movement were mailed to some two hundred persons directly engaged or interested in the fishing industry, also to the Ministers of Fisheries in the Federal and Provincial Governments. Among the numerous replies received, we reproduce the following:

Department of the Naval Service, Canada.

Office of the Minister, Ottawa,
January 25th, 1915.

Dear Sir,—I was much pleased to learn from your circular letter, which reached me a few days ago, that so much progress has been made towards the formation of a Canadian Fisheries Association. The need for such an Association has been obvious for a considerable time, and I am confident that it will prove of great assistance in developing the fishing industry and the fish business of this country. The progress that has been made reflects much credit on those who have undertaken the project, and I am hopeful that it will meet with the success it merits.

Yours truly,
J. D. HAZEN.

Department of the Naval Service.

Ottawa, January 25, 1915.

Sir,—Please accept my thanks for your letter with regard to the formation of a Canadian Fisheries Association. It is very gratifying to know that such progress has been made in the matter, and there now seems no room for doubt that the efforts that you and your associates are putting forth will be crowned with success. There can be no question that a great deal can be done by such an Association, in developing the fish business, and the fishing industry of this country.—I am sir, your obedient servant,

G. J. DESBARATS,
Deputy Minister of the Naval Service.

Department of Public Works.

Minister's Office,
Toronto, January 22nd, 1915.

Dear Sir,—I have to thank you very much for your letter and for the pamphlet, Constitution and By-laws, of the Canadian Fisheries Association.

It will give me a very great deal of pleasure to attend the meeting to be held in Montreal on January 30th, and if I am so situated that I cannot avail myself of this privilege I shall be happy to send a Representative.—Yours truly,

T. G. MACDIARMID.

Department of Colonization, Mines and Fisheries, Province of Quebec.

Quebec, 25th aJnuary, 1915.

Dear Sir,—I thank you for your recent letter inviting me to attend a meeting in Montreal on Saturday, the 30th, which is to be held for the purpose of arranging for a further meeting in Ottawa to form an Association for the protection and furtherence of the interests of those engaged in the fishing industry. If it is possible, I shall be very glad to attend next Saturday's meeting in Montreal.—Yours faithfully,

HENRI MERCIER.

Minister of Railways, Saskatchewan.

Regina, January 28, 1915.

Dear Sir,—Owing to Premier Scott's absence, your letter of recent date has been referred to me for consideration.

In reply, I may state that as under our constitution the province has no jurisdiction over the matter of Fisheries we have no department of the service dealing with the matter, which is entirely under the control of the Federal authorities.

We are, however, very interested in the question to a considerable extent, and trust that you may have a very successful gathering at Ottawa.

Yours very truly,
J. H. CALDER.

Because of its comprehensiveness, we reproduce also an excellent letter received from Mr. S. Dufault, Deputy Minister of Colonization, Mines and Fisheries, Quebec—

Dear Sir,—I am in receipt of your letter informing me of the project entertained by you and by some other gentlemen, for the creation of the Canadian Fisheries Association. In accordance with your invitation I gladly express my personal view of the proposition, which is that much help to the fishing industry may be derived from the co-operation of such a body of men watching over the interests of all concerned, from the boat-owners to consumer, including those interested in the curing, the packing and the transportation of the fish. The Association might do much, no doubt, in the way of controlling the distribution and the price of the product, which latter should not be prohibitive—lest it risk the paralyzing of the industry from its source. I think that much more can be made of the fisheries of this Province both coastal and inland.

Dr. Adams, Dean of the Faculty of Applied Science of McGill University, addressing the Royal Society of Canada last May, said: "It is a common idea that the conservation of our natural resources meant hoarding them for the use of future generations. This is an entire misconception. Most of our natural resources are best conserved by working and developing them. Our forests, our lands and our fisheries, will, if properly worked not only yield this generation a large profit, but they will be handed on to our successors in a more highly productive condition than that in which we received them."

Except for mines, which from their very nature cannot be permanent, and are liable to be dug out and thus exhausted at any time, the above is perfectly

true, and the more so when applied to the fisheries, which so quickly renew themselves, in fact every year. They should be developed to their possible limit for commercial purposes, even to the extent of calling in the aid of fish cultural operations, more particularly in our inland waters.

Our own province of Quebec offers a number of special problems to those interested in the due development of the harvest of the sea and of our inland lakes, and none, perhaps, that are more pressing than the transportation and marketing of the product of our own professional fishermen. Means should certainly be found for largely reducing the terrible disproportion which exists between the prices obtained for their produce by the fisherfolk of the North Shore of the St. Lawrence and the Baie des Chaleurs, and those paid by the consumer for similar fish on the markets of Montreal and Quebec; a much more serious disproportion, I venture to say, than that which may be found between the earnings of any other body of fishermen on the continent, and the retail price of their catch.

A wide field of possible operations opens itself out to such an Association as is now proposed, and it goes without saying that the benefits that will follow its organization will depend not only upon the commercial acumen of those who may compose its membership, but also upon their spirit of enterprise and their determination to grapple with the various problems presented by the fishing industry, in such a manner as to render justice to the great variety of interests more or less intimately connected therewith.

Yours very truly,

S. DUFAULT,
Deputy-Minister.

Highly commendatory letters were also received from Mr. W. A. Found, Superintendent of Fisheries, Ottawa, Mr. Hector Caron, Superintendent of Fish and Game, Quebec, and Mr. J. B. McCready, Publicity Agent for Prince Edward Island. Space will not permit us to reproduce in full some thirty or more letters received from persons and firms engaged in the fishing industry, who were unable to be present or represented at the meeting in Montreal, but the following are a few extracts:

"I am perfectly in sympathy with the formation of a national organization to consider the Canadian Fishing Industry, and will be glad to join up with you and our Eastern friends in a programme such as you have created. I would suggest that the organization should not be looked at purely from the producer's end, but should include a movement taking in the consumers of fish."—Mr. W. Hamar Greenwood, Skeena River Fisheries, Ltd., Vancouver, B.C.

"We are interested in your proposed organization of the Canadian Fisheries, and anything we can do toward forwarding the movement we would be pleased to do."—Dominion Fisheries, Ltd., Halifax., N.S.

"I am heartily in accord with the movement, and I trust that arrangements will be made to bring it to a successful termination and that a good live Association will be formed."—Mr. H. B. Short, Maritime Fish Corporation, Digby, N.S.

"It gives us pleasure to know that your Association is being formed as it will be a boon to all in the Fish Trade."—Reid & Haddock, Regina, Sask.

"I will only be too pleased to assist in any way possible to help make it a success."—Mr. J. N. McIntosh, Ottawa, Ont.

"The organization of a Fisheries Association is, I think, a step in the right direction. The proposed Fisheries Association has my best wishes in tackling the many problems that confront all concerned in the carrying on and development of the fisheries of Canada." Mr. A. H. Whitman, Robin, Jones & Whitman, Ltd., Halifax, N.S.

"I am interested in this movement, and will give my hearty approval and support to any movement that will have a tendency to further the interests of the producers and dealers of fish in Canada."—Mr. Hugh Armstrong, Armstrong Trading Co., Ltd., Portage la Prairie, Man.

"I heartily approve of the proposition, and I feel that the gentlemen in charge of matters are fully capable of handling same to the entire satisfaction of all."—Mr. W. M. Hodge, Lockeport Cold Storage Co., Ltd., Lockeport, N.S.

"I certainly think the move a good one."—Mr. H. A. Rice, Mayor of Canso, N.S.

"We feel that the aim and object of the Association merits the support of everyone connected with the fishing industry."—Mr. E. M. Robertson, Nova Scotia Fish Co., Ltd., Digby, N.S.

"It seems to me that the formation of a Canadian Fisheries Association is a very wise move. Each branch has its own particular troubles and any central organization which may be appealed to for advice will, I feel, be heartily supported in its efforts to put the fishing industry where it belongs—on top."—Mr. T. W. C. Binns, Matthews-Blackwell Co., Ltd., Ottawa, Ont.

"I was very much impressed with the views of the organization I would think that such an organization would not only prove to be of great benefit to those in the fishing industry, but should be of great assistance to the Federal Government in bringing about aids and protections to the fishing industry. Such an Association would naturally be made up of those keenly interested in the Fisheries of the Dominion and their views or recommendations to the different departments at Ottawa should bear considerable weight. As one interested in the Fishing Industry, I wish the organization of this Association every success."—Mr. Scott D. Guptill, M.P.P. North Head, Grand Manan, N.B.

At the second meeting in Montreal on January 30th, it was decided, in view of the encouragement given,

that the Association be organized at once, and with this object in view, the inaugural meeting will be held in the Chateau Laurier, Ottawa, at 3 p.m. on Monday, February 15th. At this meeting the By-laws will be ratified and officers elected to carry on the work of the Association. All persons directly engaged or interested in Canada's Fishing Industry are cordially invited to attend.

It is the earnest wish of the Committee to have the Association thoroughly representative of the Industry from the fisherman to the retailer, and any person who may not have received a letter outlining the movement is requested to accept the invitation through these columns. The Editor of the "Canadian Fisherman" will be pleased to furnish any further particulars.

There is not the least doubt but what an Association formed upon the above lines will have a most beneficial and far-reaching effect upon the Fisheries of this country. There will be a stimulus given to the industry: a linking up of all branches from fisherman to retailer, and a better and more cordial appreciation of each other's work. The Association is not intended to be a one-sided affair. Every person engaged in the industry has a right to become a member, and a right to pronounce their views.

With the unanimous approval already given the Association by the Industry and Government Officials, it is fully evident that it will fill a long-felt want, and the Fisheries and Fish Trade of Canada will be vastly benefitted thereby.

1915 - FEBRUARY - 1915

FISH CALENDAR

Sun.	*Mon.*	*Tues.*	*Wed.*	*Thur.*	*Fri.*	*Sat.*
-	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	-	-	-	-	-	-

Ash Wednesday, 16th. *Ember Days, 24th, 26th, 27th.*

The U.S. Fisherman's Hospital Ship

While lying at anchor behind Sand Point, Shelburne, N.S., recently, the writer, who was aboard a fishing schooner, had the pleasure of seeing the trim United States Revenue Cutter "Androscoggin" steam into the harbor. This in itself would be nothing unusual as revenue cutters have a roving commission, and are liable to be seen anywhere, but to fishermen, the "Androscoggin" held an especial interest, as she was on her first trip as a Deep Sea Fishermen's Hospital Ship.

The cutter is an able seaworthy vessel fully equipped with a sick bay upon her main deck. There are six beds and an isolation ward of two beds in the hospital department, in addition to a completely fitted operating table and a drug dispensary. Dr. O. H. Cox, of the U.S. Health Service, is in charge, assisted by a fully qualified male nurse. For the transfer of sick fishermen at sea, a splint stretcher can be used, and the patient transferred from vessel or dory without rough handling.

There is nothing selfish in the objects of the "Androscoggin's" mission. She is commissioned to attend

to fishermen of all nations, and Canadian fishermen wishing medical attendance have merely to fly the ensign from the main peak, and the cutter will take aboard all sick or injured fishermen and treat them until recovery or until they can be landed for hospital treatment ashore.

The patrol grounds for the "Androscoggin" have been carefully mapped out, with the assistance of several fishing skippers so that she will always follow the main fleet in their various journeys from Brown's to Western and Grand Bank.

Nothing will please the promoters of this splendid work more than the knowledge that the scheme is being made use of, and we, ourselves, as Canadians, trust that our fishermen will take advantage of the generosity of our sister nation. Men with hands poisoned by rusty hooks should get medical treatment from the cutter if she is in the vicinity, as this common fisherman's injury is a very painful and often a very dangerous one. Gurry sores, oilskin chafes and salt water boils are also common fishermen's complaints, which should not be neglected, as they often result in blood poisoning and disfigurement. These, and a number of "main-sheet accidents" will no doubt constitute a large proportion of the cutter's services.

The "Canadian Fisherman" heartily congratulates the United States Government upon inaugurating this scheme, and in the name of our industry extends thanks and every success to the men responsible for the promotion of a noble work.

Fish for Government Institutions

Some time ago in one of our issues we advocated the use of Canadian fish as rations to the soldiers training in barracks all over Canada, and also for the penitentiaries. If the various Government Departments controlling these institutions and the concentration camps of alien war prisoners were to supply fish at least three times a week to the persons under their jurisdiction it would help the fish trade immensely.

Mr. Hugh A. Green, a well-known fish dealer of Saskatchewan, was in the East recently preaching the gospal of fish for Government rations. He states that there are immense quantities of whitefish in storage at Northern lake stations for which there is but little market. If no market can be found for them, the dealers who hold the fish are liable to suffer a total loss and the lake fishermen will be thrown out of employment.

Speaking to a CANADIAN FISHERMAN representative Mr. Green stated: "Last year, one of our Saskatchewan fishing companies sold over 40 carloads of fish—shipping it all over the Dominion. This winter they shut down all the fishing camps and threw their men out of employment on December 26th. Five carloads of fish were sold and they have about 25 carloads on hand. As soon as a warm spell comes all that fish might as well be dumped as it will be unsaleable.

"The dealers are not selling fish now," he claimed, "Restaurants and hotels are the chief customers of the retail fish dealers, and I could show you stores that last winter were selling $100 worth of fish a week to restaurants that are now not selling $10, for customers of the restaurants are training for active service and are being fed on cold storage beef and pork at the country's expense. Fish is not recognised as a ration, although it is half the price of meat. If the military authorities would feed the men fish, the soldiers in Saskatoon could consume a carload a week, and the men in Winnipeg two or three carloads.

The closing down of the fish camps is likely to prove a serious affair to the people of the North Country, especially the white men and their families, for the fishing and fur industries are the only means of subsisting. The demand for fur has dropped to nil and in consequence the Indians are forced to the fish camps. At Dore Lake there is a large settlement of Icelanders who depend entirely on the fish industry. There are now out of work."

Mr. Green gave some interesting particulars of the fishing industry and the methods in use by one of the firms in the North Country. During the summer months a couple of hundred men are employed making boxes and nets. Eight thousand boxes capable of holding 125 pounds of fish each are required each season and the I. C. Fish Company, which has a saw mill and logging camps, manufacturing their own boxes. The netting is bought in rolls and employment is given to about 50 people making them up. This work begins about the middle of April and continues until August. In November the fishing season starts and the fishermen who usually work three to a gang come into the company's stores and camps to be outfitted. They are supplied free of charge with boxes and nets, and are sold provisions on credit, the company being repaid out of the proceeds of the fish sales. A gill net is 40 fathoms in length and each gang usually operates about 15 nets, boring holes in the ice of the lakes and stringing the nets. Good fishermen haul them in every day, two men working the nets while the third, splits, cleans and boxes the fish.

A gang in an average season clears about $500 after paying all expenses. Many teams are required to haul the boxes into Big River and about 150 teamsters generally are at work. Isle a la Crosse and Dore Lake are the two largest shipping posts, the first being 70 miles and the second 35 miles from Big River. About a ton and a half is reckoned as a load and good wages can be earned during the season, which lasts generally until about March 1.

He considers that there is a great future ahead of the North Country when it has been developed. White fish, pike, pickerel and trout are the varieties most

common, and he had frequently seen trout weighing 35 lbs. The average weight he thought would be about 10 lbs., while the white fish ran about 5 to 7 lbs.

We are of the same viewpoint as Mr. Green, and would strongly advocate the use of more fish in the menus of Government institutions—not for the Lake fisheries alone, but also for the products of the Atlantic and Pacific fishermen. Charity begins at home and while the cattle dealers have been having their share in the supplies, we in the fish trade should insist that fish be given a show, and the industry thereby encouraged.

[Since the above was written, we are pleased to report that fish has been added to the rations of soldiers and inmates of Government institutions. This means a considerable market for fish dealers all over the Dominion.—Ed.]

Halifax as a Fisherman's Port

Halifax is splendidly situated as a base of supplies for the Canadian and American fishing vessels trawling on the grounds adjacent to the Nova Scotian Coast. It is located within an easy run-off distance of the Western Banks and it possesses the advantage of being an easy harbor to enter in almost any kind of weather.

But Halifax, in catering to the bigger and more aristocratic class of shipping, ignores the smaller fry of fishing craft and evidently considers them not worth encouraging.

The Editor was a member of the crew on a Canadian fishing schooner recently, and we had occasion to run in to Halifax for fresh water and fishing information. While anchored in the stream we were informed that it was necessary for us to enter and clear the vessel at the Custom House and also to pay Harbor and Pilotage dues.

This was something new to our skipper who was under the impression that Canadian owned and registered fishing vessels under 100 tons register were at liberty to enter and sail out of a Canadian port without reporting or going through the routine of making out papers enumerating the names of the crew and particulars regarding the vessel. The payment of pilotage dues on a fishing craft seemed an unnecessary exaction, as we came in without a pilot. However, we spent a whole morning fixing up these legal papers, and when we received our clearance, the skipper registered a vow never to come into Halifax again.

Canadian fishermen are in the habit of running into Yarmouth, Liverpool, Shelburne and Canso for shelter and supplies without having to go through the red tape of entering and clearing, paying harbor dues and pilotage. These ports are glad to see the vessels making use of their harbors, as they invariably bring no inconsiderable amount of money into the place in the purchase of supplies.

Fishing craft are of a nomad type. They run into a port and stand out to sea again on the ebb and flood of a tide. They should not be compelled to go through a Customs House routine nor taxed for pilotage, which they never make use of, or for harbor dues when the anchor takes the mud but for a space of hours. Halifax might take the hint, and clear away obstructions of this nature. They will find fishermen's money worth encouraging.

Canadian Fish for England

A market for Canadian fresh fish is opening up in Great Britain. Owing to the closing of the North Sea, thousands of British fishing craft and their crews are unable to fish, consequently the demand is greater than the supply. The Old Country people are great fish eaters. With them, fish is a staple article of diet, and among the poorer classes, fish, owing to its cheapness, is a very necessary part of the menu, if they are going to live at all.

Sixty thousand pounds of Pacific halibut from Prince Rupert, B.C., were shipped from St. John, N.B., last week for Great Britain. The consignment was brought from British Columbia by the Grand Trunk Pacific in Express refrigerator cars and placed in cold storage on board the Allan liner Scandinavian at St. John. A trial shipment of 20,000 pounds was sent across last month, and when placed on sale in England, it was in first-class condition in spite of a six thousand mile journey.

We admire the business acumen of our British Columbia fishermen in reaching out for this trade. It shows a progressive spirit which might be copied in the east. What is to hinder Eastern dealers shipping cod and haddock across?

In the Billingsgate Fish Market, London, at the beginning of Jnauary, dead cod fetched $1.00 to $1.25 per stone of 14 pounds. Haddock and hake fetched similar wholesale prices. Lobsters sold at from $3 to $10 for twenty. In the Grimsby market small haddock sold for $1 with large at $1.50 for 14 pounds. With prices like this ranging there is surely a chance for some of our exporters. The fishing will be closed in the North Sea for an indefinite period—in fact until the German Navy is completely wiped out, there can be no fishing there.

Our fishing fleet on the Atlantic always dwindles down to but a few vessels during the winter months. Fresh fishing in winter calls for hardy men willing to take chances in catching fish. With the few shore boats and Bankers engaged in the work we can use all the fish caught ourselves. The great salt banking fleet is hauled up during the winter—about 125 of them lying around Lunenburg alone. If the English market offered profitable prices what is to hinder some

of our salt fishermen from getting out and making a bid for this trade?

The big able vessels of the Lunenburg fleet would make ideal haddockers for off-shore in winter. American trawlers keep the sea all the year around salt-fishing, halibuting and haddocking in the same schooner—merely changing the gear to the requirements of the work. Surely, if the market is open, our salt-fishermen can switch over to fresh fishing and make a bid for the trade. It is worth looking into.

Piscatorial Paragraphs

We are indebted to the Charles Noble, Jr., Company of Buffalo, N.Y., for a very handsome calendar. In addition to its artistic value, the calendar shows very clearly the various fish days throughout the year.

* * *

We sincerely hope that the United States Hospital Ship will not be called upon to administer "straighteners" to those sons of the sea who feel the effects of the last shore "jag" has populated the forecastle with too many visionary specimens of the green snake and pink mice variety. In a humorous light, we can imagine the cutter being hailed for a drop of the needful "to save a life."

* * *

Fishing skippers would do well to remember that neglect to comply with the law that all dories on Bank fishing vessels must be equipped with compasses, food and water, is liable to get them into trouble should men get astray. Better to be sure than sorry. Safety First!

* * *

Canadian shippers of short live lobsters seem to be cutting their own throats. According to an exchange, such lobsters shipped across to the States are being put back into American waters to replenish their own supply. Professional inspectors, who know the ropes, are overhauling all crates and seizing the live shorts. It would be better policy for us to do this work on our own side of the line.

* * *

A large Western Canada fish dealer calls our attention to the exorbitant freight rates charged on shipments of frozen fish consigned to them from the east. Even with the refrigerator car moving from departure to destination in freezing weather, the charges for icing are the same as in summer. It seems to us that there ought to be some discrimination, as paying charges on unnecessary icing does not tend to encourage the fish business. There is an urgent need at present for railroad men and shippers to get together and promulgate rates which will be fair to each other.

* * *

The off-shore fishermen of the Atlantic coast have had to contend with desperate weather ever since the winter haddocking season opened. In addition, the fish along the shore grounds has been very scarce and many of the vessels are barely paying their outfitting expenses. With the commencement of the Brown's Bank haddocking, however, prospects are likely to brighten up. The continuous storms have played havoc with the lobstermen's traps in many sections of the coast.

IN THE MARCH ISSUE.

In the March issue of the "Canadian Fisherman," we will publish an article on "Winter Fishing. The Log of a Hard Luck Haddocking Trip."—Being a short account of a voyage taken in January by the Editor upon the Digby schooner "Albert J. Lutz." Illustrated by photographs taken upon the trip.

THE CONTROL OF QUEBEC'S TIDAL FISHERIES IN DISPUTE.

A dispute of long standing between the Dominion Government and that of Quebec as to the administration of the fisheries in the tidal waters of that province will come to a head next summer and as both parties are so far standing firm according to what was learned to-day, a certain liveliness may be looked for along Quebec tidal shores this year.

After a lapse of sixteen years, the Federal Government, through the Naval Service Department, is arranging again to administer the fisheries in Quebec tidal waters west of Point des Monts. The Provincial Government, on the other hand, contemplates retaining control, and as a reference of the matter to the courts has been decided against and as Quebec has no navy, no one knows just what will decide the question.

At Confederation the administration of all fisheries was undertaken by the Federal Government, but after its jurisdiction over non-tidal fisheries had been attacked in the courts, British Columbia claimed not only the fisheries in non-tidal waters flowing through Crown lands, but those in the tidal waters as well. Pending final settlement, an arrangement was entered into with all the provinces except Quebec, whereby the Federal Government would continue to administer the fisheries in tidal waters. With Quebec it was agreed that the administration of the fisheries east of Point des Monts on the north shore of the St. Lawrence should be continued by the Federal Government, while those west of that point, as well as on the south shore of the St. Lawrence, would be taken over by the provincial authorities.

Finally, in 1913, the Supreme Court and Privy Council maintained the contention of the Federal Government against the Province of British Columbia. Quebec, however, refused to hand over the administration of the tidal fisheries it had controlled since 1898, urging that the recent Privy Council decision applied only to British Columbia, and the province also did not favorably entertain a reference of the matter to the courts. In these circumstances, the Federal Government has decided this year to undertake the control of the fisheries in Quebec tidal waters and has so informed the Provincial Government. Fishermen interested are being advised by a notice which will appear in the Canada Gazette that they must obtain licenses from the minister of the Naval Service and no other authority.

REVIEW OF LUNENBURG'S FISHING INDUSTRY FOR 1914

By AGNES G. McGUIRE.

At the close of a year, the habit of retrospection becomes almost a fixed one, and among other things worthy of review the fishing industry of Lunenburg ranks among the most prominent, as its products are among the most widely distributed of any in the world.

The year 1914 will not be classed among the "big" years, but when conditions are considered in manufacturing centres and in towns, whose prosperity in other years was unquestionable, but in which since the outbreak of the war business is absolutely flat,

Year.	Vessels.	Qtls.	Av'ge per Voyage.
1908	110	138,180	1,256
1909	93	173,582	1,866
1910	102	216,400	2,051
1911	122	216,450	1,774
1912	136	211,080	1,552
1913	121	211,405	1,747
1914	118	154,065	1,305

Vessels Fitting Out at Lunenburg

the majority of our fishermen should and do feel, that they have much to be thankful for. The merchants say that they find business about average, and the commercial travellers who have worked hitherto prosperous towns without one dollar of an order from the largest stores, claim that Lunenburg is buying just as steadily as ever, and they see no diminution in the amount of goods purchased, and it may be taken for granted that they are viewing the fishing industry, which is the very bone and marrow of our town, with considerably more respect than heretofore.

The following is a tabulated statement for the past seven years:—

This shows that the catch per vessel is lower than in any year since 1908, and the difference between that of 1913 and 1914 is 57,340 quintals.

Things, however, are not so bad as they would seem at first glance, as the spring catch, though smaller than in other years, brought unusually high prices, some cargoes touching the extremely high figure of $7.50 per quintal, while $7.00 was the ruling price.

The small spring catch was due to the ice conditions in the Strait of Canso, which imprisoned the vessels for weary weeks, preventing them from reaching the Magdalen Islands to secure bait. The summer catch, also below the average, may be accounted

for by the scarcity of squid on the Newfoundland Coast and also that the Banks swarmed with caplin, a most unusual condition, and no wise old cod was going to be foolish enough to run the risk of being hooked with dead caplin when he could have all the live ones he wanted in perfect safety. The total bank catch was 154,065 quintals, the number of vessels engaged in deep sea or Bank fishing, of one hundred tons or upwards, being 118, with some 60 smaller craft engaged in offshore fishing. This represents considerably over one million dollars in floating property. The fleet carried 2,600 men and the loss of life for the entire season was a blessedly small percentage. .

The fishermen have hitherto been handicapped by life insurance companies demanding an additional premium for a so-called sea risk. The Lunenburg fish merchants protested against this form of insurance, and proved their case so clearly that several of the companies have cancelled this additional premium, thus placing the fishermen's insurance in the same class and rate as the men on shore.

Shipyards and Marine Railway, Lunenburg, N. S.

This seems to be a year of rectifying discriminations in the fishing industry, as the war has brought about the revival of the ancient alliance between Great Britain and Portugal with the result that a discrimination made by the latter country for many years against fish from the Canadian Maritime Provinces and Newfoundland has been removed. The products of this region are now admitted to Portuguese markets on an equality with those of all other countries. Until hostilities began, Norway derived the greatest benefit from the existing conditions, which because of, general trade with Portugal enjoyed an advantage in the matter of duty charged on dry fish entering Portuguese harbors, equivalent to from 25 to 35 cents per quintal, according to the fluctuations in the rate of exchange.

This advantage enabled the Norwegians to undersell Newfoundland and Canadian products. Time and time again the governments of these countries sought the removal of this barrier, but without avail until after the war began. The reason, or rather one reason, for this discrimination sounds to us rather childish. It was the objection of Portugal to the custom on this side of the Atlantic of applying to certain wines, not produced in Portugal, the name of port wine. The Portugese Government claimed that the word "port" could only be properly applied to wine from that country. Canada and Newfoundland have fallen into and agreed to Portugal's terms in this respect. The imports of wine to Newfoundland last year amounted to 3,000 gallons, valued at $5,000, whereas the exports of dry fish from Newfoundland to Portugal amounted to 200,000 quintals, valued at $1,250,000. Next to Brazil, Portugal is the largest purchaser of Newfoundland fish. It is expected that similar concessions will be secured from the Spanish, Italian and Greek Governments shortly, and that the foreign trade in codfish will be greatly increased in 1915.

As already stated, the spring catch brought a high price, but when it came to marketing the summer catch the outlook was not very encouraging. The anxiety in regard to safety of freight, the increased rate of insurance and several other conditions caused a slack demand and kept the prices down.

Conditions have changed, however, within the last few weeks, and a large percentage of this catch has been marketed at a good price. The first cargoes bringing $6.15 with the later ones going up to $6.75 per quintal. This will net the lucky ones a good profit, although there will be some of the fleet that will not meet expenses. It is felt that the matter of outfitting should be conducted with more regard to economy, as the expenses of the cuisine are perhaps a little bit overdone.

Business has been rather quiet with the holding out for high prices, but when the cargoes began to change hands in the past weeks of 1914, the local

banks conjugated the verb to hustle, as the men from all parts of the county filed in to have their cheques cashed.

Money circulated freely after that in purchasing gifts for the wives and sweethearts as the Lunenburg fisherman is a lavish spender where his women folk are concerned and the best is never considered too good for any home.

The shipyards throughout the County have been kept fairly busy, a large number of new vessels being built for the fleet with quite a few smaller craft for shore fishing. The new vessels were for the firms of Robin, Jones & Whitman, Adams & Knickle, Zwicker & Company and W. C. Smith & Company.

A large part of the fish this Fall have been packed and shipped from Lunenburg, thus affording employment to a goodly number and keeping the coopers busy manufacturing packages. The getting out of ship timber for the yards is another source of revenue, the very highest prices being paid for that and boat building materials. This alone circulates thousands of dollars.

Despite the difficulties that beset the freighters, quite a number of our vessels have been chartered to Oporto and other Mediterranean ports to carry dry fish from Newfoundland. Others are engaged in the Newfoundland herring business for American markets, so that the earnings of many of the men have been considerably increased in what is considered a hard winter.

The off-shore fishermen in their up-to-date motor boats are busy supplying the local markets with fresh cod, haddock, etc., and lobsters, the latter though small, bringing a good price, and as the weather has been calm through the intense cold, the lobster men have had better luck than for many years. The past few winters with their incessant storms, seemed to bring this trade nothing but disaster, for as soon as the cages were lowered gales would spring up, scattering the traps far and wide, and the disgusted fishermen would see the results of their labor piled up on the rocks as so many bits of wood, washing in and out with the tide as a tantalizing reminder of their losses.

To many of these poor fellows who risk their lives lots of times in setting their traps and to whom this is almost a necessary means of eking out their livelihood, the catch during the past few weeks has been a godsend, and as the demand always far exceeds the supply, it is to be hoped that the weather god will continue to smile, so that a good season may reward their labors. The boneless fish plant here is also one of the paying industries, its products having a wide market—the ubiquitous "T. Eaton Company," figuring as an importer of this commodity, rather reversing the usual order of things. C. J. Mason and Company, of Eastern Points, is fish packing, and the output of both of these firms are second to none. Although this year's business will not be quoted among the best ones, yet the fishermen feel that it could have been much worse, and are already optimistic of the catch for 1915. In a few months outfitting will begin for the spring trip and the wharves and stores will hum with activity.

For 1914, Captain Henry Winters, of the schooner Muriel B. Winters, wins the title of "high-liner," with a catch of 2,950 quintals, with Captain Benjamin C. Smith, of the schooner Gladys B. Smith, both of whose pictures were featured in last July's edition of the "Fisherman," a close second, with 2,900 quintals.

The following is a statement of the fleet for 1914:—

Vessel.	Captain.	Quintals.
Muriel B. Winters	Winters	2,950
Gladys B. Smith	Smith	2,900
Burton L. Cook	Cook	2,750
Delanawa	Cook	2,500
Clintonia	Mack	2,250
Granite	Richard	2,150
Lilian B. Corkum	Cook	2,120
Revenue	Mossman	2,100
Warren M. Winters	Silver	2,000
J. W. Margeson	Conrad	1,950
Harry W. Adams	Zinck	1,950
Carrie L. Hirtle	Hirtle	1,925
Metapedia	Backman	1,900
Cecil L. Beck	Beck	1,900
Lauretta Frances	Spindler	1,780
F. M. Toro	Corkum	1,770
Lucile B. Creaser	Creaser	1,750
W. C. McKay	Diehl	1,750
Annie M. Spindler	Spindler	1,725
W. T. Wight	Knock	1,720
R. L. Borden	Himmelman	1,710
Vera E. Himmelman	Conrad	1,700
E. B. Walters	Walters	1,700
Earl Grey	Corkum	1,675
Marion Mosher	Mosher	1,650
Henry L. Montague	Knickle	1,650
Lilian M. Richard	Richard	1,600
Golden West	Gelson	1,575
Itaska	Ritcey	1,550
Pasadena	Wentzel	1,550
Doris V. Myra	Myra	1,550
Marion Adams	Knickle	1,550
Cento	Fralic	1,525
Warren M. Culp	Culp	1,500
Phyllis Westhaver	Westhaver	1,500
Uda A. Saunders	Spindler	1,500
Eva June	Schnare	1,500
Millie Louise	Ernst	1,500
J. B. Young	Himmelman	1,500
J. D. Hazen	Romkey	1,450
Nordica	Mason	1,400
Viola May	Wentzell	1,400
Winifred	Ernst	1,400
Arcana	Hebb	1,400
Lewis H. Smith	Westhaver	1,400
Jennie E. Ritcey	Ritcey	1,400
Benevolence	Corkum	1,400
Frank Adams	Creaser	1,375
Percival F. Parks	Parks	1,350
Hazel L. Ritcey	Ritcey	1,275
Jennie E. Duff	Wansback	1,250
Arcola	Knickle	1,250
Marion Silver	Silver	1,250
Elsie B. Corkum	Corkum	1,200
Original	Conrad	1,200
Falka	Conrad	1,200
Gladys and Lilian	Duggan	1,200
J. H. MacKenzie	Geldert	1,200
Frank J. Brinton	Giljoy	1,200
Otokio	Ernst	1,200
Artisan	Walters	1,200
Mantanzas	Wentzell	1,150
Elsie Porter	Eisenhauer	1,150
Wautauga	Backman	1,150
Russel H. Pentz	Pentz	1,150
Douglas Adams	De Courcey	1,100
Defender	Knickle	1,100
Blake	Corkum	1,100
Carl D.	Schmeisser	1,100
Assurance	Zinck	1,075
Evelyn V. Miller	Miller	1,070
Associate	Backman	1,050
Lottie A. Silver	Silver	1,050
Minnie M. Mosher	Backman	1,050
Coronation	Tanner	1,050
Mary and Mildred	Conrad	1,000
Lloyd George	Himmelman	1,000
H. H. MacIntosh	Wynacht	1,000
Independence II.	Whidden	1,000
Abyssinia	Sartey	1,000
Caranza	Conrad	1,000
W. Cortada	Backman	1,000
John Parker	Ritcey	1,000
W. C. Smith	Selig	980
W. G. Robinson	Publicover	950
Mankato	Walters	950
Ida M. Zinck	Zinck	950

Gigantic—Parks	900
Donald A. Silver—Silver	900
A. G. Eisenhauer—Eisenhauer	875
Muriel Walters—Walters	800
Guide—Getson	800
Leta J. Schwartz—Schwartz	800
Mariner—Greek	800
Electro—Corkum	750
W. H. Smith—Naas	750
Ida M. Westhaver—Young	700
Arcona—Sartey	700
Norma O. Collins—Collins	700
Mary D. Young—Berringer	650
Nobility—Croft	650
Edith Marguerite—Himmelman	650
Falcon—Walters	600
Eva M. Zellars—Greek	600
Ellen M. Maxner—Publicover	600
Bernard C.—Herman	500
Lowell F. Parks—Parks	460
Review—Bell	450
Ethel—Walters	400
Muriel D. Young—Conrad	400
118 Vessels.	154,085

Gill Netting at Gloucester, Mass.

By R. P. GETTY.

Within the last few years a novel method of catching fish has been adopted by certain progressive fishermen of Gloucester, that ancient fishing town of Massachusetts, with results so satisfactory that it bids fair to become an important factor in the regular shore fisheries of the place. And it has all come about through an improved application of the gill-net, that contrivance which consists merely of suspending a net vertically in the water with meshes of such a size as to catch by its gills any fish that may attempt to force its way through them.

Fishermen, of course, know that the principle of gill-net is not new. That with modifications, it has been employed in many waters, principally in Norway, where its use seems to have taken a firm hold on those inhabitants who derive their living from the sea. But as a practical measure in the United States its employment never made much of a success.

The nets were not strong enough to restrain the large fish often encountered, and were too unwieldy and clumsy to be handled in the strong and shifting tides and currents which are met with so frequently. In fact actual experiences showed that it was only available in fairly calm days, and these were just the times when the sail boat with its dependence on the wind for propulsion could not reach the fishing grounds suitable for the proper sinking of the nets. And matters would probably have remained in what amounted to a period of disuse had not the Gloucester men with their power boats and a net lifting device, come forward and solved the problems presented.

The craft to-day employed at Gloucester for the new method, usually run from 36 to 50 ft. in length, and are covered over almost their entire deck space with a cabin. Such an arrangement protects the engine ranging from 24 to 36 horse-power capacity which propels the boat, and also the auxiliary engine from three to five horse power capacity, which operates the lifter designed to handle the nets.

This latter machine consists of a drum wheel twenty-eight inches in diameter around the rim, of which are arranged clutches actuated by a cam which close at a certain point and grasp the side lines of the net only to open again at other points to release them. This drum is set firmly on a base fastened securely to the deck and is rotated by the auxiliary engine already mentioned.

The nets employed are one fathom wide and sixty fathoms in length, with a mesh of six inches, and are anchored with about thirty pounds weights. Buoys are floated at the surface whenever necessary. Usually forty or fifty of these nets are sunk, and set at one time, and are weighted sufficiently to keep them in an upright position in the water, one net following the other net until every one is let out and sunk.

The gill-net season at Gloucester begins the first of November and ends about the first of June, when it must cease on account of the prevalence of dog-fish which render further fishing unprofitable.

After the boats reach suitable grounds from ten to fifteen miles from shore, the fishermen with the lifter get ready for the work. The end of one net is anchored and buoyed, and then let out and sunk followed by other nets in succession so rapidly by the machine that it is possible to sink four miles of them in half an hour. After the last one is anchored and buoyed comes the wait for the fish to get ensnared, usually from one to two hours.

Net Lifting Machine on Vessel's Deck

When ready for a hauling the anchor at one end of the long line is lifted, the boat is started ahead with its engine, and the auxiliary engine on its own account begins to revolve the lifter. And then in truth, begins the real labor of the day, for the fish, often thousands in numbers, come tumbling and squirming up with the nets over an adjustable roller leading from the drum, and pass in a curved trough around one side of it to the deck where the crew clears out the catch and places the emptied nets in trays convenient to handle.

These nets have the advantage of being able to be handled either with or against the tide, and two miles or more may be lifted in one hour provided the crew is quick enough in clearing the deck. When all the nets are in, others may at once be set from the stern of the boat, while running at full speed as before described.

The number of fish secured by means of these gill-nets is enormous, and men engaged in the industry say it is nothing unusual to ensnare from five to eight thousand pounds in a single haul, figures that are really startling when compared with the seven or eight hundred pounds which is usually considered a fair one day's catch for a shore boat. Captures such as these

have been impossible before unless it be with the beam trawl. And another advantage of the method is the entire saving in bait, and of the labor formerly required for handling and baiting the trawls in the old-fashioned way.

Gill-netting, as it is now practiced at Gloucester in conjunction with the net lifter, has certainly opened the eyes of the shore fishermen to the possibilities of their calling. There seems no reason why the same results should not be obtained by Canadian fishermen in their own native waters.

The Fishermen's War Work in the North Sea

Manned by Great Britain's deep-sea fishermen, hundreds of tiny vessels are patrolling England's coast from Harwich to Pentland Firth. From boats in which only a few weeks ago they were catching herring and trawl fish they are now fishing for menaces to navigation and maintaining a daily "sweep" for mines. Day and night the drifters' patrol and the mine-sweeping flotilla are engaged in a work which, if it is less glorious, is not an unimportant part of the work of England's navy.

What a perilous task the mine "sweep" is, is evidenced by the number of disasters which have overtaken members of the fleet. The strain of the work is tremendous, as each man realizes that every turn of the propeller may send him to the bottom. For mine "sweeping" the vessels work in pairs, steaming abreast of each other and dragging between them a heavy chain that sweeps as a trawl net along or just above the bottom of the sea. When a mine is fouled it either explodes or is dragged to the surface and put out of action. The danger is in the vessels striking with their hulls the mines that they are seeking to discover with their trawls.

Through the roads of the North Sea a continual procession of merchant shipping, bringing supplies of all kinds to the various ports, is passing with regularity and comparative safety. As far as the North Sea is concerned, it is only mines, comparatively speaking, that constitute a danger to the coastwise and oversea traffic for the seas are well cleared of hostile ships.

Many of the drifters engaged in patrol work have been fitted with wireless, so that they quickly get in touch with the authorities when mine layers or other hostile vessels are sighted. The coast is divided into districts, and Lowestoft, North Shields, Folkestone and other such fishing ports have become headquarters for the mine destroyers.

Hundreds of other fishermen, members of the Royal Naval Reserve, have been mobilized and are now in barracks waiting to be drafted into vessels as they are commissioned in the stokehold or on the deck. Not all of the fishermen have been able to find places in the various branches of sea service. Thousands of them are out of work and the outlook is anything but bright for very many.

"In other years at this time," "Toilers of the Deep," the magazine of the Royal National Mission of Deep Sea Fishermen, says, "the great herring harvest of the east coast should be in full swing. To-day the quay is lined with vessels, but there is no sign of life on board; also they are idle because the markets on the other side of the North Sea are closed to them, and because their work at sea would be a menace to themselves and cause serious hampering to the rapid developments of His Majesty's ships that come and go continually.

"At the outbreak of the war the North Sea was cleared for a time of all fishing vessels, and many of us think it would have been well had the prohibition been maintained longer than it was. There can be no doubt that numbers of fishing vessels have been captured and turned into mine-laying vessels while outwardly, to all appearance, they are English trawlers engaged in their ordinary routine of fishing.

Many of the fishing ports have received blows through the non-return of a large part of their fishing fleet. The vessels have simply disappeared. Whether they have been sunk or captured no one can say. Boston, Grimsby, and Hull have been particularly heavy sufferers through striking mines. Thirty vessels were reported destroyed from Grimsby and ten from Boston. In other cases only two vessels were the crews all saved.

The mine-sweepers will continue their work all through the winter or until the close of the war. More than 200 vessels are carrying on the work in the North Sea, each with a crew of 10 men.

FISHERIES STATISTICS, DECEMBER, 1914.

The value of the sea fisheries, for the month of December, 1914, was $699,441, compared with $699,716 for the same month in the preceding year. This value being what was paid at the boat or vessel's side for the fish.

The chief kinds of fish showing increased catches during the month under review, as compared with December, 1913, were salmon, cod, haddock, pollock, sardines, halibut and smelts.

On the Atlantic coast rough weather prevented fishing operations being carried on to a greater extent, yet, notwithstanding this fact, increased catches are reported in several districts. In New Brunswick, with the exception of the Bay of Fundy Coast, and in Prince Edward Island, about the only fishing prosecuted was for smelts, while in Quebec the fishing season has closed.

Since the opening of the lobster season in November last, there have been 1,343 cases packed, and 8,685 cwts. used fresh or shipped in shell.

On the Pacific Coast the weather was good for fishing and a large catch of halibut was landed at Prince Rupert.

For the nine months period, from April to December, the value of salt water fish when landed, was $16,219,808, compared with $17,983,328 for the corresponding period in the preceding year.

FISH TRADE ENQUIRY FROM ITALY.

Mr. Silvio Verona, Casella Postale 1176, Milano, Italy, wishes to get in touch with Canadian exporters of stock-fish, cod liver oil and whale oil. Send quotations, c.i.f. Genoa, brokerage commission, etc. Payment will be made cash against documents.

The fishing interests of the world will be pleased to learn that there will be fifty-three Fridays during the year; the superstitious will also find in the fact an excuse for considering nineteen-fifteen an unlucky year.

Wholesale Fish Prices, Montreal Markets

(Quoted by D. Hatton Company.)

Fish trade has been relatively quiet since holiday time. Mild weather has also interfered to a great extent with the sales of frozen fish. Stocks held in first hands are of fairly good size and prices as a rule comparatively low. Lent is near at hand and a good demand will set in now.

Frozen herrings are scarce—all other lines plentiful. Fishing operations are practically over for the season on the Eastern Coast. From the West, reports come that stocks are very well reduced. Whatever surplus available had been shipped to England.

From the lakes region, fishing is nearly over, and a good supply has accumulated. Let everybody be patriotic during Lenten time and help the fish industry, which is one of the best assets of Canada. Fish as food is hygienic economical, satisfying.

Smoked Fish.		
Haddies, 15 lb. boxes new ..per lb.		$ .07
Haddies, 30 lb. boxes ..per lb.		.07
Haddies, Fillets..per lb.		.10
Haddies, boneless, 15 and 30 lb. boxes.. ..		.08½
Yar. Bloaters, 60 in box, Selected		1.20
St. John's Bloaters, 100 in a box		1.00
Kippered Herrings—Selected		1.40
Kippered Herrings—Other brands		1.20
Smoked Herrings—large size, per box		.18
Smoked Herrings—medium, per box..		.20
Smoked Boneless Herrings, 10 lb. box		1.10
Ciscoe Herrings, a basket 15 lbs...		1.50
Smoked Eels		.12
Fresh Fish.		
Salmon Gaspe .. ..per lb.	.15	.16
Salmon, British Columbia .. ..per lb.	.13	.14
Halibut .. ..per lb.	.11	.12
Mackerel .. ..per lb.	...	.10
Haddock .. ..per lb.	.05	.05½
Market Codfish .. ..per lb.	.04½	.05
Steak Sodfish .. ..per lb.	.06½	.07
Smelts Medium .. ..per lb.		.12
Blue fish .. ..per lb.		.16
White fish .. ..per lb.		.12
Lake Trout .. ..per lb.		.11
Dore .. ..per lb.		.12
Pike .. ..per lb.		.08
Eels .. ..per lb.		.10
Carp .. ..per lb.		.10
Dressed Bullheads .. ..per lb.		.10
Perch .. ..per lb.		.06
Lobsters live.. .. ..per lb.		.26
Lobsters Boiled .. ..per lb.		.28
Frozen Fish.		
Salmon—Gaspe, large .. ..per lb.	.11½	.12
Salmon—Red, Steel Heads .. ..per lb.	.11	.11½
Salmon—Red, Sockeyes.. .. .. ..per lb.	.09½	.10
Salmon—Red, Cohoes or Silvers per lb.	.08½	.09
Do. Dressed .. ..per lb.	.09½	.10
Salmon and headless· .. ..per lb.	.10	.10½
Salmon Pale Qualla, dressed ..per lb.	.07	.07½
Halibut large and medium .. ..per lb.	.09	.09½
Mackerel, Bloater .. ..per lb.	.08	.08½
Herrings, medium, 50 lb. per 100 count		2.30
Herrings, large, 85 lb. per 100 count..		2.60
Haddock, medium & large.. ..per lb.	.04½	.05
Market Codfish .. ..per lb.	.04½	.05
Steak Codfish.. .. ..per lb.	.05½	.06
Pollock.. .. ..per lb.	.03½	.04
Tommy Cods .. ..per brl.		2.00
Smelts, extras 10, 20, 25 .....per lb.		.15
Smelts, medium to large .. ..per lb.		.11
Smelts, small .. ..per lb.		.06
Canadian Soles .. ..per lb.		.07
Blue fish .. ..per lb.	.16	.17
Striped Sea Bass, large .. ..per lb.	.15	.16
Sea Trout .. ..per lb.	.10	.10½
White fish, large .. ..per lb.	.09½	.10
White fish, small Tulibees .. ..per lb.	.06½	.07
Lake Trout, large and medium per lb.	.10½	.11
Dore, dressed or round .. ..per lb.	.08	.08½
Pike, dressed and headless.. ..per lb.	.06	.06½
Pike, round.. .. ..per lb.	.05½	.06
Eels .. ..per lb.		.10
Shad, 3 lbs. each..		.08
Frogs, 10 lbs. tins		.20
Pickled Fish.		
Salmon, Labrador, Tierces 300 lb.		20.00
Salmon, Labrador, Brls. 20 0lb.		14.00
Salmon, B.C., brls.		13.00
Sea Trout, brls.		12.00
Sea Trout, half brls., halves..		6.50
Mackerel, N.S., Brls. 200 lb.		12.00
Mackerel, N.S., Hf. Brls. 100 lb.		6.75
Mackerel, N.S., Pails, 20 lb.		1.50
Herrings, Labrador, Brls.		5.50
Herrings, Nova Scotia, Brls.		5.25
Herrings, Nova Scotia, Half Brls.		2.90
Lake Trout, Half Brls.		6.00
Quebec Sardines, Brls.		6.00
Turbot, brls.		14.00
Salt Dried & Prepared Fish.		
No. 1 Green Cod, large, per barrel		10.00
No. 1 Green Cod, medium, Brl..		9.00
No. 1 Green Cod, small Brl..		8.00
No. 1 Green Cod, Haddock, medium, Brl. ..		8.00
No. 1 Green Cod, Pollock, Medium, Brl. ..		7.00
No. 1 Green Cod, Hake, medium, Brl.		6.50
Quebec Eels, large, per lb.		.07
Dried Codfish, med. & small 100 lb. bundle ..		7.00
Dried Hake, medium & large 10 0lb. bundles		5.50
Dried Pollock, medium & large 100 lb. bund.		6.00
Dressed or skinless codfish, 10 0lb. case ..		7.25
Boneless Codfish, 2 lb. blocks, 20 lb. boxes		.08
Boneless Codfish, strips 30 lb. boxes		.11
Shredded Codfish, 12 lb. boxes, 24 cartons, ½ lb. each, a box		1.75
Bulk Oysters, Clams, Etc.		
Best Standards, imp. gallon..		1.40
Solid meats, imp. gallon		1.70
Selects, best, imp. gallon		1.80
Selects, solid meats, imp. gallon		2.00
Best clams, imp. gallon		1.50
Best Scollops, imp. gallon		2.00
Best prawns, imp. gallon		2.00
Best Shrimps, imp. gallon		2.25
Oysters pails, ¼ gal. per 100		1.10
Oysters pails, ⅛ gal. per 100		.90
Oysters pails, 1-16 gal. per 100		.70
Sealed best standards, quart cans, each		.35
Sealed best selects, quart cans, each		.45
Oysters, Clams, Mussels and Shell Fish, Crustaceans, Etc.		
Cape Cod shell oysters, per barrel		9.00
Malpeque shell oysters, selected C.C.I., brl..		11.00
Malpeque shell oysters, selected J.A.P., brl.		10.00
Malpeque shell oysters, ordinary, per brl. ..		8.00
Malpeque shell oysters, caraquets, per brl...		5.00
Clams, per barrel		7.00
Mussels, per barrel		5.00

AN OLD-TIME TRIP ON THE BANKS

By CAPTAIN SYLVANUS SMITH.

In the following interesting article Capt. Sylvanus Smith, in the Gloucester Times, in his bright, inimitable manner, tells of the old-time fisheries of Massachusetts and takes his readers on a cod-fishing trip in the old Marblehead Grand Banker, "Polly Ann."

The captain writes:—

Of all old towns along the New England coast, none are more worthy of note than old Marblehead. History gives special mention to the men of this place in the early wars and any tribute we might pay them now would be but a repetition.

In the very early days of the colony this town was one of the important fishing places along the coast and many Grand Bankers "hailed" from this port. Many men were engaged in the fishing industry there and the products were sent to distant markets, bringing home the products of other lands. On all the uplands along the shore were "flake yards" where fish were cured before being sent to market.

The vessels in which these men pursued their calling were probably built from timber cut in the near by forests and square at both ends. They were not things of beauty, nor were they smoothed with plane and sand paper, but simply, yet strongly made, answering the purpose of those times.

The vessels engaged in the Grank Bank fishery were divided into two classes, those which made two trips, starting in May, and those making but one trip, spending four months at sea, which entitled the mto bounty money. The bounty was allowed by the government to such vessels as spent four months at sea and the amount varied according to the soze of the vessel, the limit any one craft might receive was $360.

I recall going to Marblehead with my father when a very small boy to dispose of a few halibut which he had caught. The late Bank fleet were getting ready to sail.

While we were lying in the harbor, some of the boys who were going on these vessels, took me aboard some of the crafts. They were some of the very oldest of the fleet and would indeed be a curiosity in these days and one of them I remember in particular after all these years. She was one of the oldest of that fleet of old craft. The cabin, like all those old-fashioned craft, was a deck cabin, with a fireplace in the middle, opening toward the companionway (the first and only time I ever saw a fireplace so arranged) and the forcastle, or where the forcastle is in a modern craft, was used for the storage of supplies. Under the for'd hatch was a place bricked up where a smudge fire could be kept for smoking fish, above, on the under side of deck, between the deck beams, were lace lines where halibut were placed for smoking, after being "flitched." During the trip such halibut as were caught were thus prepared and when properly done were considered very fine.

Crews "Found" Themselves.

The crews of these craft "found" themselves, so that a man could be as saving as he wished. Provisions for such a trip were confined to simple things, and the menu was not very extensive.

The sch. Polly An was a very old craft with old style rig and sails of hemp duck, and when dry the sun could be seen through them. These were very durable, and soft and when on the Banks could be easily taken off, rolled up and stored away.

While the sails made of this material were "baggy" when dry, this was largely overcome by wetting the sails, a "scoot horn" being used for this purpose. When wet the fibre had a tendency to shrink which made the sail lay quite flat.

There were no patent blocks on this old craft as is found on the modern schooners and the windlass for taking up the anchor was one of those very early affairs, the crew using hand spikes and "rounders" for this purpose.

The "skipper" of the Polly Ann, probably recently married, was a young man, who was making his first trip as skipper.

The Trip of the Polly Ann.

The following day, with a fair wind, saw the sailing of the fleet and with them the old "Polly," the skipper's wife waving him a last farewell from the shore. With 30 or 40 vessels making ready to sail, the wives and sweethearts and children gathering down by the Head to see them off on their long trip, was an impressive sight. There also was old "Skipper Ben," who had sailed away on this same craft, 25 or more years ago, when the Polly was among the newest of the fleet. In our imagination we can picture him as he wanders homeward, when the last sail has disappeared from sight, and later in the old chimney corner with his pipe as companion (not always lighted), he lives over again the summer of his life, when as a young man he had gone to the Banks in the old Polly. He recalls those old days' Thanksgiving dinners at sea, of those days when he had seen the snows of winter melt, while on the Banks in the sch. Polly Ann.

Often in the days to come he would stroll down to the "Head" and gaze off to sea, to catch a glimpse of some incoming craft which might bring him news of the old schooner and of his son. And when the vanguard of the first Bank fleet arrive, he is among the first to clamber aboard to talk with those who may have news of his old schooner.

In fancy we might take a trip with the young "Skipper Ben," who has sailed many trips with his father, in fact since his thirteenth year the sea has been as much, yes more, his home than has the land.

As the old schooner with sails hoisted, feels the breeze in her sails she fills away and with gathering speed passes out by the "Head" into the bay, catching a last glimpse of the watchers on shore.

With the optimism of youth the young skipper looks forward eagerly to the trip, confident that he will overcome the dangers of the sea and return in due time "well fished" to his home port. With every thing made snug when once in the open sea, the watch is set and he of the first watch takes the tiller. This was before the days of the wheel, the tiller of the old craft being made of oak and some eight feet long. The old Polly bowls along lumberingly and when Thatchers is reached the course is "set" for the Grand Banks,

and the fifth day out they find themselves becalmed on the fishing frounds off Sable Island and here some of the crew try for fish, after getting up a barrel of clam bait.

Fish are found quite plentiful and when cleaned the refuse is thrown overboard attracting many hagdons which seem to recognize the old Polly, some even alighting on the rail. Quite a few of these birds are taken with hook and line (they take the hook freely) and when cleaned were considered quite an addition to the larder. A popular way of preparing them was in a "pot pie" and when cooked in this manner they had a taste similar to a coot. These birds are a specie of gull and are seldom seen excepting at sea.

Several "trys" are made for fish at different spots on the bank until the tenth day from home they find a spot to suit them on the north-eastern part of the bank, where fish seem to be quite plentiful, and the mainsail is taken off and stored away in the forepeak until a start should be made for home.

Handlining from the Deck.

The mode of fishing was handlining from the deck, there being four men to each side of the craft, each man having two lines and his own "kid" or box in which to put his catch. Fishing is kept up as long as the fish take the hook freely and then each man's catch is counted, the skipper keeping the account, and when "dressed" and cleaned are put in the hold and salted down. The boy's time was not much taken with the simple cooking and he had plenty of spare moments to do chores for the men, such as filling and lighting pipes and catching hagdons (which were salted and taken home for winter use). The last words of old "Skipper Ben" was for them to save him some hagdons.

It is said that these old time skippers did not consider a Thanksgiving dinner complete without a boiled hagdon, even though the fattest goose might adorn the table, its gamey flavor and its fishy taste as well strongly appealing to these men.

Where the Polly anchored was probably on a rocky bottom where the fish come to cast their spawn as well as to feed on the bank clams which the fish swallow in its whole state and when the meaty part of the clam has dissolved the fish ejects the shell.

Halibut are very plentiful and bother them considerable at times, their gear being light and not suitable for halibut fishing. Often a trawl is rigged out astern at night in this manner. When cleaned and "flitched" these are smoked in the place made for this purpose for'd, the boys attending to the smoking of the fish.

The life on the Banks and aboard these craft was much the same from day to day. These craft that made but one trip made their start in the late spring and were home before winter set in so that they saw but little real severe weather though at times there were severe summer gales which swept the Banks these were not the rule.

Occasionally some fishing craft would be sighted and if she happened to have just come from home late news would be gleaned. If she happened to be home bound, messages would be sent to those at home.

Sighted Homeward Bound Craft.

On the 2nd of July the sch. Robert Bruce was sighted bound home on her first trip and those on the Polly asked to be reported.

July 4th was celebrated by not fishing, the crew taking this opportunity to repair clothes, repack the fish that had been caught, dipping the oil off the livers, etc. It was in this manner that the oldtime fishermen spent their Sundays when on the fishing grounds.

In those days no trans-Atlantic steamers crossed the Grand Banks as is now the case, but in place of these were many timber ships, bound to and from Canadian ports, which made fishing on these grounds more or less dangerous. At certain seasons of the year there were a great many of these ships and naturally they were quite a menace to crafts at anchor on the banks.

Another danger was from icebergs which came down from the north to finally melt in the warm waters of the Gulf Stream. Many of the icebergs are of immense size and if it happens to be clear weather can be seen for many miles, not the actual bergs perhaps, but the "ice glim" which has a sort of mirage effect, reflecting the object in the sky when it is altogether too far way to be seen in itself.

These bergs have been known to ground in 150 feet of water, and as but one-sixth of their size is shown above water some idea of their bulk may be imagined.

Fill Water from Iceberg.

Great care must be taken that one of these does not come down on a craft while at anchor. Often they will be obscured by the thick fog which sweeps down across these fishing grounds and then the position of a fishing craft may indeed be dangerous. The summit of some of these icebergs tower 75 feet in the air and often on the south side of the berg, where the warm sun melts the ice, dashing rivulets may be seen tumbling down the sides into the sea. It was from one of these bergs that the crew of the Polly Ann refilled some of their water butts with cool, sparkling water.

Often a field of ice will be seen many miles away and as these come nearer, many colors will be reflected by the sunlight, a beautiful sight indeed. These bergs move slowly but the "pan" or "field" ice moves more quickly. Sometimes a French trawler will be seen in the distance and their boats will go out setting trawls miles away from their ship. These boats are large affairs, round bodied and carrying quite a large sail. The French vessels are largely brigs and considerably larger than vessels of the Polly type.

Homeward Bound.

As the days pass by the nights become cooler and a noticeable shortening of the day appears which tells them the approach of fall. The old Polly Ann has settled deeper and deeper in the water, which shows they are "well fished" and that the journey home will be a matter of but a short time; and for the last few days the catch has been "kenched" on deck, until the fish in the hold can settle to make room for more. Another sign that she is nearly full is the slow and sluggish manner in which the old schooner takes the swell and then one afternoon the order is given to break out and bend the mainsail, the anchor was hove up and the old Polly is soon upon her homeward trip. Not a fast sailer at her best, and after four months on the banks with her bottom covered with barnacles, she makes a slow passage home. However, there is quite a number of things to do, the last of the halibut are smoked up and put away, the deck cleared and everything made snug and with light winds generally the old craft wallows along her course, taking 12 days on the passage home.

While these old bankers were not much for beauty, and dull sailers, they were good sea boats generally. In a great summer gale during the early days many

of these vessels were lost, foundering with all on board. It is related that Capt. Floyd Ireson's vessel when passing by one of these craft was "hailed" and asked to "lay by" which he refused to do, and when this became known in Marblehead, the women tarred and feathered the skipper and rode him on a rail. Whittler wrote a poem referring to the affair and the lines may be familiar to some of the readers:

"The strangest ride that ever was sped
Was Ireson's, out from Marblehead.
Old Floyd Ireson, for his hard heart,
Tarred and feathered and carried in a cart
By the women of Marblehead."

We may guess "Skipper Ben's" joy as he saw old Polly come up the harbor and follow him as he hastens to where his dory is moored. With an activity surprising in a man of his years he sends the little craft quickly through the water, and is among the first to climb the rail of the old schooner and to greet his friends among the crew. One of his first questions is if "they have saved him some hagdons?"

He notes the fish kenched on deck and is greatly pleased when he gazes into the hold and sees that "she's full to the beams," and he remarked that it was the best trip she ever made.

When the fish were taken out, washed, etc., by the crew, old "Skipper Ben" took charge of the curing of the cargo. No immediate settlement is made, the fish being cured and sent to market, it being months perhaps before the crew received their share of the catch.

Seventy years passed since I again visited Marblehead and passing in by the "Head" I saw a crowd of people, but how changed. In place of the wives, sweethearts and friends of out-going craft, as in the old days, now were seen women and girls in light summer dresses, men in natty yacht costumes and from the club houses the sound of music and laughter is wafted by the summer breeze. The harbor is filled with pleasure craft and handsome residences dot the shore where stood the flake yards of years ago, and to me it was a wonderful transformation.

FISH FAMINE IN ENGLAND.

Though the cry all over the country is for fish, the Midland towns are perhaps suffering the most. A fish famine also prevails in Liverpool, to such an extent that, according to a well-known fish merchant, the situation is unparalleled in the history of the trade. No one, he says, remembers such scarcity and high prices; indeed, many varieties are quite unobtainable. From what I hear, there seems quite a boom in chilled salmon. It seems likely to take the place of the prime kinds of salt-water fish.—Fishing News, January 16.

FRENCH COD FISHING FLEET NOT TO SAIL.

The cod fishing fleet, which usually equips in Brittany and Normandy during December for the next voyage to Newfoundland, has asked the Ministry of Marine if it is possible to count on its being released from service by the end of February. The Minister of Marine replied that he was unable to make such a promise, hence the first sailing of the fleet for 1915 has been cancelled.

A Homeward-Bounder's Song

The skipper passed the word to-night: "Sheet out an' drive her home!"
So the able little hooker is a-stormin' through the foam,
With the whole four lowers on her—jigged taut an' sweated down,
An' the swayin' bowsplit p'inting for the lights o' Gloucester town.

"West, the course, an' drive her, you!" To the watch the word goes round,
An' the little schooner's walkin' 'cause she knows she's homeward bound,
An' my little girl is waitin' with a kiss I know for me,
And a hearty sweetheart's welcome for her trawler home from sea.

The soundin' lead is clean wore out with nigh a hundred sounds,
An' the jumbo tail rope's clean wore through with joggin' on them grounds.
Our trawl gear's raked the bottom clean from Western Bank to Grand
An' we've bin fourteen weeks to sea — it's time we made the land.

"Golly, will I drive her? West, ye say? I got ye, Joe!
Whoop! Jest let me warm her! Sure, I'll make this peddler go!"
With this easterly a-breezin' on the course that we are bound,
Sure, I'll tear the mains'l off her 'fore we start a-reefin' down.

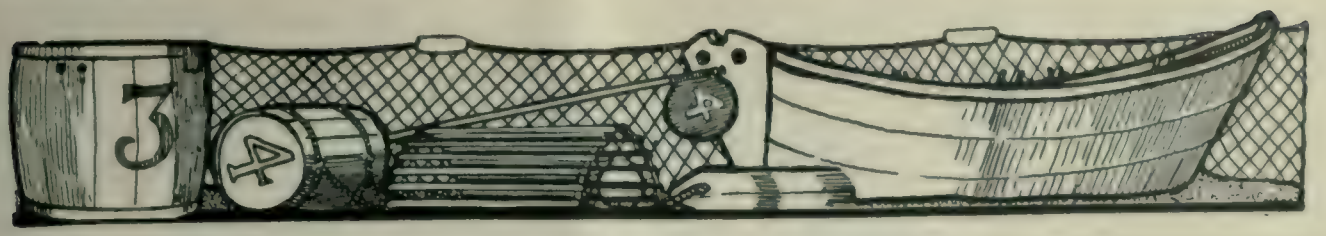
"Yes! I know she's breezin' ugly, and the snow is comin' thick,
But she'll romp some ways to Gloucester, boy, afore I leave my trick.
The skipper's snorin' in his bunk, and he's a drivin' hound,
And he won't reef no mains'l, boy, when we are homeward bound!"

So it's rip along an' drive her John, there's fish to sell below!
It's keep her steady on her course an' blow, ye winds, heigh-o!
For a little girl is waitin', boy, 'way down on Gloucester quay,
With a hearty sweetheart's welcome for her trawler home from sea.

PERSONALS.

Mr. H. C. Walby of the Canadian Fish and Cold Storage Co., Ltd., Prince Rupert, was in Montreal recently on his way to Europe. Mr. Walby predicts a great future for the fishing industry of Prince Rupert. The several shipments of fresh and frozen fish which his firm have made to Great Britain arrived in good condition and were well received by the British consumer.

Mr. Oscar L. Davis, of the Gateway Fish Company, Yarmouth, N.S., and Mr. S. Y. Wilson, of A. Wilson and Son, Halifax, N.S., were in Montreal this week. Mr. Davis informs us that they have received large orders for their threaded codfish from English firms. The initial shipments have already been made.



THE ATLANTIC FISHERIES

CANSO, N.S.

(Special Correspondence.)

The unusually severe weather conditions, of December, with its "blows" storms and zero weather was followed in January of the New Year by the opposite extreme. This almost summerlike spell has allowed the winter-haddocking fleet to continue operations somewhat later than usual, some of the boats being still in action at time of writing—that is, the last week of January. The catches, however, since the middle of the month have not been large enough to make up for the backwardness of the early part of the season, and the craft from outside ports have returned to their homes. Just after my preceding report had been sent in, the price of haddock advanced to 2.00 per cwt., which still obtains. The season's work, as a whole, has hardly, I think, been up to the average, at any rate, nothing more, for though some good landings were made particularly, as usual, during New Year's week, yet the "schools" did not seem to hold out as usual. One day a big catch, the next, very often almost nothing, or as the men themselves said, "the fish were spotty."

Not long ago the Government steamer "Thirty-Three' came very near being the scene of a distressing accident. The ship's popular cook, Mr. Harris Barss, had been in the habit, while the boat was in dock, of sleeping in the cabin, which is heated by an old base-burner. One morning, in the wee small hours, he woke up almost stupified by gas from the heater. With great difficulty, he managed to drag himself on deck, where he lay in the cold for several hours until, on the arrival of a teamster on the wharf, he succeeded in attracting attention. A doctor was called, and Mr. Barss was soon "on deck" once more, but it was some time, as he remarked to your scribe, before he began to feel like himself again.

Contrary to her former rule, the steam-trawler Rayondor did not return to the Old Country on the approach of winter, but will continue fishing on this side for the present. Capt. Olesen has been succeeded by Capt. Jensen, the former visiting his family in Denmark. Capt. John D. MacDonald has been shipped as pilot for the winter fishing

DIGBY, N.S.

(Special Correspondence.)

The fish are gradually leaving the shores now for the off-shore banks. The boat fishermen are therefore beginning to quit the shore fishing, and until the vessels find the fish on the off-shore banks there will probably be a temporary scarcity. It usually happens that when few fish are being landed, the demand from the upper provices increases more or less accordingly and vice versa. But during January the demand was not very active, notwithstanding the fact that the catch was below the average. However, at this writing the demand seems to be somewhat better.

The steam trawler, St. Leonard, after a successful season here, has left for her home port in England; but she has apparently left behind her sinister shadows in the minds of some of our shore fishermen. A writer in the Halifax "Morning Chronicle" of January 9th, who signs himself "Shore Fisherman" refers to this boat as being a "Destructive and piratical steam trawler," and says further that she has stripped the fishing grounds in the Bay of Fundy. Now the writer does not care to take exception to these statements, but there must be something radically wrong somewhere, for I have been reliably informed that this boat caught just 22,525 lbs. of fish in the Bay, and none of those within the three-mile limit; while her catch of one or two million pounds was procured hundreds of miles from the Bay of Fundy. This for the information of those shore fishermen who, it seems to me, are accusing this boat of something she does not rightly deserve.

The off-shore vessels have landed here during the month as follows:

"Grace Darling"	15,513
"Quickstep"	47,984
"Cora Gertie"	123,655
"L. C. M."	25,830
"Mary Lord"	28,000
"Elmer"	5,010
"Albert J. Lutz" (by rail from Yarmouth)	23,056
"Lila Boutilier"	74,539
"Dorothy M. Smart"	67,265

LOCKPORT, N.S.

The Morning Chronicle's Lockeport correspondent sends the following list of vessels landing fish at that port from January 18 to January 23, inclusive:—

R. L. Mackenzie, 13,859 pounds, Nellie Viola 13,000, Jellicoe 15,890, Buema 12,535, Togo 6,300 Opitza 19,630, Gladys Thorburn 18,500, Alcyone 23,104, Lydia May 14,468, Julie Opp 15,500, Olive R. 1,500, Ida M. Cunningham 1,600, Elnora T. Bonney 4,665, Blanchard C. 2,730, Viola A. 2,009, Helen G. McLean 19,318.

NEW BRUNSWICK NOTES.

(Special Correspondence.)

"One thing I would like to see the Dominion Fisheries Department do is to establish a lobster hatchery on the New Brunswick shore of the Bay of Fundy to stock the waters of St. John and Charlotte counties," said Lewis Connors of Connors Bros. Blacks Harbor, who was in St. John yesterday.

"Quite a number of lobster hatcheries have been established on the Maine Coast, and the lobster fish-

ing there is much better than it was some years ago. Lobsters are not so plentiful in St. John and Charlotte county as they used to be, and a hatchery is needed to restock the waters. At one time our firm handled large quantities of lobsters, but to-day we do not handle a single lobster. Canning lobsters is now out of the question in these two counties. This winter, the fishermen of Charlotte county and Grand Manan have been receiving 25 cents a piece for live lobsters. That is a good price. On the whole, I think, the lobster fishermen have been making a fair season of it, but if the lobsters were as plentiful as they used to be, and the fishermen were getting 25 cents a piece, it would be a great thing for our people.

"If a lobster hatchery would give results anywhere, it would be along the shores of St. John and Charlotte counties. Fairly deep water is, I believe, essential to successful artificial culture of lobsters, and that we have along the shores of the Bay of Fundy. When lobster fry is distributed in shallow water it is very often destroyed in the surf, or devoured by inshore fish. We have not yet realibzed what a valuable asset our lobster fishing might become, or we would have given more attention to the matter of artificial culture."

Cononrs Bros. is the only firm in New Brunswick which was engaged in canning sardines last year, and it only finished operations a few weeks ago. In spite of the high prices for sardine herring, the company put up a large pack, and it plans on resuming canning operations in March. This winter, small herring have remained on the coast, and this, it is said, promises good sardine fishing this year. It is believed by some fishermen that it may become more profitable for the sardine packers to carry on operations in the winter time instead of in the summer. Last summer the sardine packers had to pay $30 a hogshead, while during the present winter there were times when sardines were abundant at $5 a hogshead. Although large herring were scarce about Grand Manan last summer, they have recently struck in around the island in big schools and the fishermen have been making good catches.

NORTH SYDNEY, N.S.

The fishermen of Ingonish and other sections in Northern Victoria County have ceased operations, after one of the most successful seasons in their history. Last week a shortage of bait prevailed, when those engaged in the industry decided to cease work until the Spring. The last cargo of about 25,000 pounds was conveyed here Saturday by the tug Hilford and shipped by rail from the deep water terminus direct to Toronto, where a great demand prevailed. Since the Hilford commenced taking fish here for rail shipment to Ontario about five weeks ago, it is estimated about 400,000 pounds found their way to the Ontario market.

What will likely be the largest cargo of fish to leave here this season, and the second in the history of the port, for Cork, Ireland, will be carried by a steamer which is due here in a few days. The Buckworth and Mumby Co., owners of the Irish trawler Andromanche, which had such a successful season, stored a considerable quantity of her catch before sailing two months for Lockeport, are sending a steamer here to take the fish from Vooght Bros. warehouse. This will be augmented by a consignment to be taken on at Halifax, when the steamer will sail direct to Cork. One of the trawlers owned by the above firm, which was to operate in these waters next season, was a short time ago taken over by the British Admiralty, and is now used as a mine-sweeper in the war zone. The Company, however, immediately gave a contract to a British shipbuilding concern to build another trawler of the latest design, and next summer the firm will have four, and possibly five trawlers operating in these waters, with North Sydney as headquarters.—North Sydney Herald.

ST. JOHN, N.B.

(Special Correspondence.)

The hatchery built by Hon. J. D. Hazen on the city property at Little River is proving a splendid success, Last year 2,500,000 salmon and 250,000 trout eggs were cared for, and this year an even larger number, over 3,000,000 salmon and 3,000,000 trout eggs are now in the troughs, and are expected, according to reports of the department officials, to yield splendid results. Up to the present, trout eggs have been secured outside the province, but Hon. Mr. Hazen, who is taking a warm personal interest in the effort to cultivate the game fish of the province and restock the lakes and streams, has hopes hereafter of getting the eggs from local sources. It is also planned to increase the efficiency of the hatchery by having outside tanks in which the young fish can be developed to the fingerling stage before they are sent away. The benefit of the work of salmon propogation is now so well recognized that equally satisfactory results are looked for from the work Hon. Mr. Hazen is having carried out in connection with the trout, while good results are also being reported from the more difficult work of shad propogation, although the officials have not been able to get all the eggs desired. A year or two more will pretty well demonstrate what the results are, and if the work is not altogether successful, a close season for shad may have to be declared. The report on the trout hatchery sent to Hon. Mr. Hazen by his officials is as follows:

"I am pleased to report that 300,000 speckled trout eggs were laid down in splendid condition in the St. John Hatchery on Saturday last, the 16th instant. The inspector reports that judging from their appearance on the following day he does not think the loss will exceed 2 per cent. These eggs were purchased from the Acton Trout Ponds of Acton, Ont., at 80c per thousand. Last season's supply was purchased from the Caledonian Mountain Trout Club, of Inglewood, Ont., at $1.00 a thousand.

"Three million and sixty-four thousand salmon eggs from the St. John Retaining Pond were also placed in this hatchery last November. They have developed satisfactorily and are in splendid condition at the present time.

"The above is as many eggs as should be carried in this hatchery. The troughs could carry a few more if absolutely necessary; but if no more than the usual loss occurs, they will be congested when the fry begin to hatch. Provision has been made to relieve this congestion by transferring some of the fry to outside tanks.

"The increase in the number of eggs in this hatchery over last year is shown below:

	Atlantic Salmon.	Trout.
1913	2,500,000	250,000
1914	3,064,000	300,000

(Signed) "J. A. RODD.

"Ottawa, January 20th, 1915."

A falling o of $40,480 in the market value of the fisheries in St. John and Charlotte counties for the year ending March 31, 1914, is noted in the annual report of the marine and fisheries department at Ottawa. The value of the fish marketed during 1913-14 was $1,572,119. According to the report there is $1,923,874 invested in the fishing industry in this district, an advance of approximately $65,000 during 1913-14. There are 3,767 men employed at the work, a decrease of 143 persons from previous years. This, the report says, is due to fewer persons being employed in fish-houses, canneries, etc., on shore.

Wholesale quotations here are:—

Small dry cod	4.25	to	4.50
Medium dry cod	5.25	"	5.50
Grand Manan herring, bbl.	3.00	"	3.35
Pollock	3.25	"	3.50
Fresh haddock	0.00	"	0.00
Fresh cod, per lb.	0.03½	"	0.04
Pickled shad, half-bbl.	8.00	"	12.00
Bloaters, per box.	0.80	"	0.90
Finnan haddies	6.00	"	7.00
Kippered herring, per doz.	0.00	"	0.90

YARMOUTH, N.S.

(Special Correspondence.)

The past month has been a dull one from the fisherman's point of view. There has been a "blow" practically every day, and there have been but one or two fish days of any consequence. The weather has not been cold—it has been the mildest January for many years, but it has been exceptionally windy. The principal activity has been in the live lobster fishing. The catch has been fair and the price has been steadily advancing. The last shipment sold at 30 for large.

There have been a few fresh fish shipments, but none of them have been very large. The south shore has been sending quite a quantity particularly of salt herring and mackerel and scallops. Of the latter there has been an exceptionally large quantity sent over.

The shipment of fish to England and Scotland still continues and the Gateway Fish Company have completed arrangements with a prominent fish dealer in Falmouth to handle a large quantity of their product every year.

J. N. Gardner, of Boston, and Captain Ansel Crosby, of Yarmouth, have entered into a partnership for the buying and shipping of fresh fish. They have opened an office on the Gateway Company's wharf, and that company will pack the shipments.

The first casualty in a fishing fleet for some months took place on the evening of the 15th, when Edward Muise, one of the crew of the schooner Nelson A., was drowned. It is presumed he made a miss-step while boarding the vessel that evening. The body was recovered on Monday, the 18th, and at the inquest a verdict in accordance with the facts was returned.

Now that the lobster factories are paying such low prices for tinkers, many of the fishermen are trying to sneak a few through to Boston in their live lobster shipments. But they are on to the trick at the other end. By the Massachusetts law these tinkers are contraband, but still they are shipped in spite of repeated warnings. The State Fish Commission is looking very closely into the matter with the result that these tinkers are being confiscated and released again in Boston Bay. Only last Thursday 6,000 of these slints were so disposed of. It is pretty nearly time our fishermen "took a tumble" and put an end to this foolish trick. They are getting nothing at all for the tinkers they are sending over, and are out the freight on them. At the same time, their labor is helping to stock the waters of another country.

The exports for the past month have been:

Live Lobsters, crates	3,429
Fresh Fish, cases	254
Fresh Halibut, cases	8
Eels, boxes	43
Smelts, boxes	962
Finnan Haddies, boxes	1,221
Pickled Fish, cases	177
Boneless Fish, boxes	3,521
Salt Mackerel, barrels	15
Fish Clippings, barrels	62
Cod Oil, barrels	8
Salt Herring, barrels	234
Dry Salt Fish, drums	1,648
Scallops (shocked) barrels	215
Dulse, barrels	15
Fish Waste, barrels	162
Canned Lobsters, cases	721
Clams, barrels	274
Glue stock, barrels	5
Bloaters, boxes	25
Shredded Fish, cases	2
Hake Sounds, bags	75
Fish Scraps, barrels	17
Fillets, cases	25
Tongues, barrels	14

To London:
75 cases Canned Lobster.

To Panama:
75 drums Dry Salt Fish.

To Porto Rico:
110 casks Dry Salt Fish.

To Brazil:
436 crates Dry Salt Fish.

NEWFOUNDLAND FISHERIES.

St. Johns, Nfld., January 16.—There has been very little doing in the fish business as between merchant and fisherman this week, says the Trade Review, but some small lots of dry and talqual shore changed hands at $7.70 and $7.80. Labrador soft cure is quoted at $5.50 for ordinary, with better price for better dried goods. Well-cured Labrador Shore is selling from $6.80 to $7.00, and West India goes at from $3.80 to $4.00. Cod oil has advanced slightly since last week, and the figure this morning is from $82.00 to $85.00 per tun for prime goods in iron-bound packages.

The Western fishery has opened very well this season, as far as the in-shore voyage is concerned, but the bankers have not yet left the coast. Mr. LeMessurier, Assistant Collector of Customs, had a wire from Burgeo, on Thursday, to the effect that the eighty dories in that vicinity had landed fourteen hundred quintals in three days. This is a pretty good showing, as it means an average of nearly six quintals per day per dory. It is an evidence that the fish is on the ground, and if the bait supply holds out, the Shore fishery for the winter in Burgeo and vicinity, is likely to be a pretty good one.

The Italian fish market, which has been very healthy of late, is likely to be somewhat affected by the dis-

aster, which has lately devastated Naples and vicinity, and business complications are likely to arise to hamper the disposal of cargoes of our fish now at Naples or on the way over. To this writing, none of the local merchants has received any information as to how the position is affected, and we must only hope that matters will come out alright.

Outlook for Newfoundland Fisheries Good

Despite the great European war, says the Trade Review, and the conditions necessarily entailed, and which affect, more or less, every part of the world, Newfoundland enters the new year confronting a very hopeful outlook. During the last months of 1914, there was a shortening of our industrial sails, some of our fish values shrunk, labor became restricted, and money flowed less freely through our ordinary trade channels; but the enhancement of codfish prices, late in the season, did a good deal in lightening the depression and removing the feeling of panicy pessimism that was very apparent during the first month of the war. Besides, the country had passed through a series of fat years, and there was a good bit of money stowed away in the national stocking when the war came.

Heretofore, the bank fishery did not begin until from the first to the middle of March many years, but this year we note that some of the first of the western fleet are about starting on the annual voyage. Some of them are baiting with salted squid, while others are taking along fresh frozen herring brought down from Bonne Bay and Bay of Islands by the Western coastal boat. Up to a few years ago, the bank fishery (and for that matter the cod-fishery generally) was conducted in a come-day go-day fashion—that is without much keenness or enthusiasm. It was part of the national annual game, and every man engaged worked at the business ust because it was his way of making a living, and he never expected to get more out of it than the bare necessities of life. His horizon was bounded by the close of his day, and he had no ambitions for to-morrow.

But of late years a great change has come over the fishermen of the Island, especially the fishermen of Southern and Western ports. The men have become more eager and hopeful in the prosecution of their calling, and are beginning their voyages earlier and continuing them later. Any person who has watched the change closely must admit that it synchronizes with the removal of duty on our fish going into the United States and the consequent increase in our trade in this article with the people of that country. Last year Newfoundland sold in salt bulk to the Americans, 76,326 qtls. codfish and at good prices, and all on a straight cash basis. This trade is only in its infancy, and it is in anticipation of its growth that the Western and Southern bankers are moving in beginning the voyage nearly two months earlier than usual.

Some persons contend that the activity of the Americans on our coast last year was due to the fact that the American catch was short, and that with the return of a normal year, or years, we will not be called upon to supply fish to the Americans. But those who know the situation deny this; they say that the United States people are eating more fish food per head than ever before, and they are going to continue to eat it. Upton Sinclair's "Jungle" story of a few years ago was a great indirect help to fish-eating, and the high prices for meat have helped the fish trade ever since. The American immigrants of the last few years have been from Eastern and Southern Europe, and are great fish eaters. They are calling for more fish than Uncle Sam can supply, and Eastern Canada and Newfoundland must fill the gap.

LET FISHERMEN RACE FOR THE AMERICA'S CUP.

What better demonstration could be asked that our international cup defenders are merely racing machines, not real boats, than the fate of the yacht Defiance? This beautiful piece of workmanship cost the syndicate which had it built approximately $1,000,000 before it was found she was out-classed in the trials. Now the Defiance goes to the junkman for $6,500. Not a real boat, this proves that she is not even a yacht, else some yachtsman surely would have snapped her up at the nominal sum for which she was turned over. We fancy a race between a crack English fishing vessel and a trim Gloucester schooner manned by red-blooded Gloucestermen, sailed in a smashing summer smoky sou-wester would be a real test of boats and men.—Portland Express.

The Newfoundland Fisheries for 1914

The year 1914 shows the first break in a long series of years of prosperity, says the Trade Review. Part of this is due to purely local circumstances, and part to the indirect influence of the European war. The year was still young when the sealing disaster came upon the country, and two hundred and fifty men lost their lives. The sad event cast a gloom over the country, and the response in subscriptions for the disaster has been generous, amounting to $310,680 at this writing. This sum will be distributed with equity and care by the committee in charge. For the first half of the calendar year the business of the country and the industrial output was up to the normal, and the outfitting for the fishery was as large as usual. The ice conditions on the Newfoundland and Labrador coasts however made for a later opening of the fishing season, and, as a matter of fact, the bulk of the fish voyage was taken after the first of August, which is rather unusual. The catch of shore fish was smaller in 1914 than the year before, but the Labrador catch was larger. We estimate from most reliable figures available that the shore catch for the year just closed amounted to 700,000 qtls., against 850,000 quintals last year. The Labrador catch amounted roundly to 300,000 qtls., of which slightly over 90,000 qtls (91,048 qtls. to be exact) were shipped from the coast, and 210,000 brought to Newfoundland and hard cured. The Bank fishery for the calendar year 1914 shows that 105 vessels were employed; these had crews aggregating 1,892 men, were of 7,790 tons, and caught 124,067 qtls., which was less than the catch of 1913 by 28,307 qtls. Included in the shore catch are 76,326 qtls., sold in salt bulk to the Americans, if we add the 124,067 qtls. to the total of shore and Labrador catch given above, we will have a grand total of 1,124,000 qtls.

for the year. The high figure maintaining this fall will give an average price of $6.50 all round, or a total value for our codfishery of $7,306,000.

The seal fishery, notwithstanding the disaster which overtook it, was fair. The total catch was 233,718 seals, value for $494,355.00, against 272,965 seals the preceding year, which were valued at $493,697.00.

The lobster fishery was very small during 1914, and, as a matter of fact, the shrinkage in catch has been very noticeable for years past. The catch was only about 12,000 cases, against 20,000 cases the year before. About two thousand cases of these were bought when the war broke out, and changed hands for $22.50 and $23.00 per case. With the declaration of war the price dropped from $12.00 to $13.00, and only those packers who were forced by circumstances have sold.

The demand for processed fish in the local market is increasing; Mr. John Clouston put up nearly six thousand quintals during 1914.

The amount of fishery products exported for the two years past is given in tabulated form on this page, with increase or decrease in the various articles.

Exports from the City of St. John's, for the calendar years 1913 and 1914, showing the increases and Decreases in the quantities handled during these years:—

	1913.	1914.	Inc. for 1914.	Dec. for 1914.
Codfish, Qtls.:				
Portugal	68,504	19,238	.....	49,266
Spain	131,732	90,472	.....	41,260
Italy	126,357	116,992	.....	9,365
B. W. Indies	71,414	63,945	.....	7,469
Brazils	484,405	341,147	.....	143,258
Dom. of Canada	13,607	3,940	.....	9,667
England	7,864	13,461	5,597	.....
Scotland	.....	150	150	.....
United States	13,357	10,117	.....	3,240
Other parts	95,216	65,626	.....	29,590
Seal Oil Tuns:				
United Kingdom	2,316	1,422	.....	894
Other parts	657	1,937	1,280	.....
Cod Oil, Tuns:				
United Kingdom	1,529	1,199	.....	330
Other parts	2,148	3,697	1,549	.....
Salmon, trcs	3,930	2,911	.....	1,019
Mackerel & Herring, brls	28,393	36,552	8,159	.....
Whale Oil, tuns	809	459	.....	350
Codliver Oil, tuns	51	81	30	.....
Guano, tuns	556	174	.....	382
Trout, brls.	1,178	1,785	607	.....
Lobsters, boxes	15,827	2,816	.....	13,011

BIG DEAL IN CODFISH.

J. A. Farquhar and Co., recently put through one of the largest deals in fish in one day that has been made in Halifax. This firm sold in a day over 1,000,000 pounds of cod in bulk, from Newfoundland. Of this amount 800,000 pounds will go to Cork, Ireland, by the tern schooner Beryl L. Corkum, from Halifax. The remaining amount, about 300,000 pounds, was sold to Fobin, Jones & Whitman.

THE MOTHER CAREY SUPERSTITION.

Mother Carey's chickens, the fascinating little petrels whose chosen home is on the tempestuous Atlantic, are well known to fishermen and beloved of sailors, who consider they bring luck on their ever-fluttering wings. There are many varieties, some as large as a sea-gull, some as small as a swallow. But all of them are most graceful in shape, and in coloring are soft and sad: just the hue of the shadows that play about the waves, slate-grey merging into steely-blue. Their names are curious. "Petrel" is obviously derived from Peter, the Apostle, who tried to walk upon the water. But while St. Peter failed, the petrels "walk" for hours upon the surface of the sea, paddling with their pattering feet while their fluttering wings keep them secure—"forever climbing up the climbing waves." They seek their food thus upon the sea: the tiny molluscs and infusoria almost invisible to eyes less keen than theirs. The French call them the "Birds of Our Lady"—"Oiseaux de Notre Dame," viz., Latin: "Mater Cara." It is easy to see how that last term has become "Mother Carey." There is something uncanny about these small creatures, found hundreds of miles from land, living in the spray of the tremendous seas, their wild, lonely cry coming, with strange effect, as if from the very heart of the great deep. To sailors they are sacred. We once managed to entangle one in a net, and succeeded in getting the throbbing scrap of life on deck. The report of our capture ran through the ship like wildfire, and the oldest of the A. B. came, hat in hand, to entreat us to set it free. "It makes the men a bit nervous," was his plea. "Odd things happen now and again. It is safer to give it back to the sea." And back to the sea and its mysterious life we gave it forthwith.

EAT THE SMALL FISH.

The Berlin (Ont.) Daily Telegraph shows good common sense in the following editorial which appeared recently.

Dealers in fish find it difficult to dispose of the inferior varieties and the smaller grades of fish that are brought in by the fishermen. Consumers forget that little fish are taken in the nets as well as large ones, and that all are delivered to the merchant. It follows, therefore, that, if there is only a small demand for the less choice fish, the dealers must obtain higher prices for the better grades. This is an aspect of the high cost of living which deserves the serious consideration of the public. Except for the slight extra labor involved in preparing small fish for the table ,they are in no way inferior to the larger fish, their flavor and nutritive qualities being quite as good. Similarly many of the so-called coarser cooked grades of fish, when skilfully cooked, are not only very palatable, but are very nutritious.

Consequently, it will be seen that greater economy can easily be practiced in the use of this very important natural resource. The fisheries of Canada are both varied and extensive and should prove to be an important factor in reducing the cost of living. What is needed, says one critic, is more conservatoin in connection with them, or in other words more careful and intelligent use.

THE MAINE LOBSTER LAW

By ALFRED ELDEN.

[The following article by a writer who has made a study of the lobster fishery conditions along the Maine coast, will doubtless prove of interest to our Canadian readers, and those engaged in the lobstering industry of our own waters.]

Some time before the Maine Legislature adjourns this spring, it will decide whether to change its present lobster law which prohibits catching and selling anything under approximately ten and one-half inches in length, or whether to adopt a nine-inch law similar to those which prevail, in the coast States of New Hampshire, Massachusetts, New York and farther south. Maine's lobster industry has reached a stage where something must be done to save it from eventual annihilation.

It is generally conceded by lobster fishermen, lobster dealers and the thinking public at large that the Maine law is the best for fisheries and fishermen, but that its effectiveness is nullified by the non-existence of similar laws in other coast states. It is not a difficult thing to make the situation reasonably plain. In Maine the carapace of a lobster must measure 4¾ inches. What is the carapace? It is the shell covering the cephalothorax! For goodness sake what is that, you ask? Why, it is the anterior portion of the crustacean, the united head and thorax. In plain English, it is the body of the lobster and if it measures 4¾ inches, that ensures a length of at least 10½ inches from the end of the nose to the tip of the outstretched tail.

It is not my purpose to undertake a history of the Maine lobster industry. Government and State reports are obtainable for the asking that tell the story scientifically and exhaustively. But I should like to point out a few conditions that exist along the coast of Maine because of the present lobster law, or, perhaps, in spite of it.

There are strong arguments to be made both for and against a retention of the 10½ inch law. Those who believe in letting matters stand as they now are, point out that there is a good deal of bunkum in the outcry for "uniform" law. For example, the laws of Massachusetts, New Hampshire, Rhode Island, Connecticut and New York are practically uniform. What has been the result? They depend largely upon Maine for their lobsters. Why? Because they have reduced the size to a point where, with lax enforcement, the fishermen have been able to market almost anything big enough to call a lobster. Naturally, this has resulted in a great deterioration of their lobster fisheries. A hundred of legal length Maine lobsters will average in weight forty pounds more than a hundred of the nine-inch variety, permitted in other States. In 1914 Maine landed over eight million pounds of lobsters while Massachusetts, Rhode Island, Connecticut and New York combined did not produce one-half as many. Where then, does the uniform law advantage appear? The only uniform law, people of this belief will agree to is one that will put other States on a uniformity with Maine.

But on the other hand. It cannot be denied that there are fully as many intelligent lobster dealers, fishermen and other interested people who think that if the Mountain will not come to Mohammed, Mohammed should amble resignedly in the direction of the Mountain, Maine being Mohammed, while the part of the Mountain is taken by the nine-inch law of other States. The nub of the whole situation lies in the absolute inability of Maine officials to enforce the present law. It is a situation that one Portland warden recently said made criminals out of honest Maine fishermen. While that statement would hardly bear a literal analysis, it is true that hundreds of Maine lobstermen who would not stoop to a single mean, underhanded or in any other way dishonest act, always have and always will traffic in short lobsters.

As the crow flies it is little more than 200 miles from Kittery Point to Quoddy Head, but because of the bays, reaches, coves and almost countless indentations, it has been estimated that Maine has a coast of more than 3,000 miles in length. There are approximately 3,000 lobster fishermen, and seldom if ever more than 30 wardens distributed so as to cover the coast to the best advantage. Picture for yourself just what 30 wardens can accomplish against the wits of 3,000 shrewd fishermen, scattered along 3,000 miles of coastal waters!

It is unfair, however, to state that all Maine lobstermen are law-breakers. In some communities it would be almost suicidal for a man to attempt to catch and sell illegal size crustaceans. Take the Island of Monhegan, for instance. There the lobstermen do not put their traps in the water until January 15 and promptly at midnight on June 15 every bit of gear is up and on the bank. The man who would attempt to lobster fish in waters adjacent to this island during the six months close season would be given short shrift indeed. But Monhegan is peculiarly situated. Nearly 20 miles off shore in the open Atlantic, its fishermen can come pretty near running a little fishing monarchy of their own. And they are wise enough to do this. The lobsters become so large and plentiful during the summer months that enormous hauls are made when the fishing does begin. The Monhegan lobsterman who fails to clear $2,000 during the six months of fishing considers he has had hard luck, while there are always a few high liners who come close to the $3,000 mark.

So, too, are laws well observed at Matinicus, Vinalhaven and here and there along the coast. But it has been estimated by Sea and Shore Commissioners that there are few times when there are not at least 1,500 lobstermen engaged in a wholesale business in short lobsters.

Whom do they sell to, and how is the traffic carried on? Well, the summer tourist is the most prolific source of profit, because from him are the highest prices obtained. He pays from 75 cents to a dollar and a quarter a dozen. It is these retail transactions, however, that generally get the short lobster man into trouble. Wardens sometimes spend days trying to get a case against these fishermen. But in order to do so they must catch their "man with the goods."

Generally they lie in wait in some secluded spot along the shore where with a powerful field glass they can watch the lobsterman as he returns from the morning's haul. They may see him tie his motor boat to its mooring, cull out the legal length catch and place it in his near-by car. So, too, may they see him in a more underhanded manner putting other lobsters into an old grain bag. The warden may glimpse the fisherman wave his hand toward the shore and turning his glasses in that direction he will readily make out the prospective customer. Then the lobsterman with his bag

of shorts will jump into his punt and hastily row ashore, transfer the "shorts" to the summer tourist and receive in exchange his money for them. The warden prefers to step into the game right here and to seize the bag from the fisherman before the latter has passed it to his customer. He then has a clear case against the primary offender. To be sure he could take the lobsters from the purchaser and impose the customary fine of one dollar each for every lobster, but that would not be reaching the fountain head.

It is the risk of transferral that has led many lobstermen to make a rule that they will not deliver "shorts" personally. The most popular method is to secrete them in some place along the rocky shore when no wardens are about. The customer knows of this hide, of course, and at a propitious moment makes off with his prize, paying the fisherman when next he sees him. There is a spice of adventure, of danger, to such a transaction that is all very fascinating to the average summer tourist who seldom stops to think that in reality he is helping to make a criminal of a Maine fisherman. Unfortunately for the law neither purchaser nor fisherman can be made to realize that taking from the sea anything God has placed therein is a particularly serious offense. They place the lobster law on a parity with the Maine prohibition law—something that is well enough on the statutes, but that must be winked at on the quiet.

While, of course, many thousand short lobsters are disposed of in this manner during the Maine vacation season, it is the wholesale traffic in "shorts," that is really responsible for the present agitation looking to a change in Maine's law. While not all summer hotel landlords are law breakers in this respect it is well known and admitted by all the wardens that a great many of them leave standing orders with certain fishermen to furnish them with all the short lobsters obtainable. The average short lobsterman would much prefer to sell 200 or 300 "shorts" outright to a single individual for, say, 50 cents a dozen, taking but the one chance of getting caught, than to attempt to dispose of that number by the dozen to summer vacationists, with all the attendant risk.

Even worse than this wholesale business for the future of the Maine industry is the smack trade between all points of the coast and Boston. Here is the situation. Dozens of unscrupulous Massachusetts smacksmen long since discovered that there were great possibilities in operating a lobster smack between Boston and Maine points. These smacks operate Winter and Summer, although the heavy business is, of course, done during the period between early Spring and late Fall, as the Winter seas are generally too tempestuous for the little smacks. Some of these craft are sloops equipped with auxiliary motors, but during the past three or four years the more modern smacks are power craft wholly. They are from 40 to 60 feet in length, equipped with large wells and have engines of sufficient horse-power to give them a speed of from 10 to 12 miles.

These smacks are the despair of the Maine wardens and of the Maine coast missionaries who are now carrying on a splendidly organized work among the fishermen. The Boston smackmen stock up with generous quantities of cheap liquors of all kinds. They know just where they can use it to the best advantage. Liquor is hard to procure in the isolated sections of the Maine coast and on the outlying islands. And it is lamentable but true that there are among the Maine fishermen as among the fishermen all along the coast, those who will hold a quart of cheap whiskey in higher favor at times than they will a five dollar bill.

The result of all this is that the Massachusetts smackmen come to Maine and secure immense quantities of short lobsters which the fishermen save for them in clever hides. In exchange the smackmen give the poisonous and coveted liquor or else buy the lobsters, paying the very lowest prices possible. As the Maine lobstermen are dealing in illegal goods it is apparent that they must take what they can get for their lobsters. These the smackmen carry back to Boston, and, as the majority of all they buy averages just about nine inches, or legal length in Massachusetts, they are able to command the full market price per pound. It is easy to see that the Maine fishermen gets the worst of the deal in every way. He is debauched with the cheap liquor and receives possibly five cents a pound for goods that the smackmen receives twenty-five for. Then, too, the lobster industry of Maine is being irreparably injured. The lobsters which should either be allowed to attain legal Maine size, or the proceeds of which should go to Maine fishermen, are taken away for the benefit of outsiders.

The point made by those who would have the law changed is evident. It is absolutely impossible to prevent the traffic, both wholesale and retail, in short lobsters. Granting this, then why not make the Maine law uniform with that of offending Massachusetts and the other States? With a nine-inch law, Maine fishermen can dispose at local markets for the full market price the lobsters they now sell for a song to the outside smackmen. There will be no occasion to furnish vacationists with any appreciable number of "shorts," for there is little demand for a lobster that measures less than nine inches. Everything, it is claimed, would automatically adjust itself. No more lobsters would be taken than are taken now, consequently the industry would be in no more danger of a decline than it is at present. Moreover, the otherwise honest Maine fisherman would find it unnecessary to become a criminal in order to make a living.

If it were possible for lobster wardens to enforce the present law there is no question that the interests of the industry would be conserved by retaining it. It is admitted, however, that it would require a fleet of swift motor boats and a small sized army of wardens to prevent the traffic. The ingenious methods of the Maine lobstermen in inventing ways of hiding their catches of shorts and adding to them until they have accumulated enough for the smacks would furnish a score of plots for a moving picture scenario. With smart motor boats of their own they carry hundreds of "shorts" out to the smacks which await them just beyond the three-mile limit, where no officials can touch them. There have been in the past fist fights between fishermen and wardens. In one or two instances shots have been exchanged, and it is not uncommon for a warden to order a short lobsterman ashore at the point of revolver or rifle. Naturally, the feeling between wardens and fishermen is bitter, and it is the wonder of all that so far bloodshed has not ensued.

These are among the chief points that the Maine Legislature is being asked to consider at its 77th annual session. The present law has been in effect since 1895. As a preventive of illegal fishing it has proved an undoubted failure. Will its repeal and the adoption of a law uniform with that of other coast States remedy the situation? It remains for the Maine legislature to decide.

THE PACIFIC FISHERIES

(Special Correspondence.)

Fishing in British Columbia, covering the year 1914 just past, taken as a whole, leaves very little to complain of, with the exception of the run of sockeyes on the Fraser. Other packs were well up to average, and at the present writing there is very little left in storage on the Coast.

Fish like the Chums Salmon fetched almost record prices wit hthe canners, owing to the fact that our neighbors on the Sound seemed to think that all the salmon they could get hold of, irrespective of quality, would find a ready market.

As far as Vancouver is concerned, there is quite a movement eastward of frozen and canned fish, but the shipment of dry-salt herring was lighter than previous years. This can be attributed to the fact that financial conditions in China were decidedly unsettled, and also that salt costs more than in previous seasons.

The famous Point Grey herring were a disappointment to some, owing to the fact that orders were secured for many thousand barrels of this fish, and they refused to put in an appearance worth while. Of course, British Columbia has no kick coming over her fish movements in 1914, and she has the additional satisfaction of knowing that she has now open for her products a brand new railway, practically in the heart of the fishing ground.

Smoked Fish.

The present winter has seen quite a number of firms making kippers, bloaters and kippered salmon, etc. In fact, it looks as if, from the prices asked, that there were almost too many at the game. Of course, this is the trouble in all businesses, and cannot be avoided. Unfortunately it leads to price - cutting, and consequently some packers have to get out of the game. There are enough herring offering to supply requirements of bloaters and kippers. Smoked and kippered salmon are fairly plentiful, but curers find that it is difficult to procure halibut cheap enough to allow them to sell it at a price to attract the housewife.

Pickled Fish.

Supplies of salt salmon are practically exhausted, except for a few odd kits in the hands of small dealers. These will be readily taken up before the winter is over, and carry-overs will be practically nothing.

I notice that the widely read Pacific Fisherman, which is acknowledged to be the official organ of the Alaska Fisheries, has taken a great interest in the "Pickled Fish Inspection Act." This is gratifying to us, and helps us in our belief that this Act will materially help sales to our friends across the line. This will be of special interest to British Columbia Packers, as it ought to give an impetus to the packing of herring and salmon. American markets will now feel that they are getting value for their money, and in consequence will have no excuse to offer us less, than they give for their home-cured goods.

Salmon.

Steelheads here offering fairly well during the month of December, and this high-grade fish could have been had by the carload at attractive prices if purchasers had been open. Unfortunately the war has affected this fish also, in so far as France and Germany are concerned, as they took many cars of Pacific steelhead salmon yearly. German markets being closed, and France no longer being interested in what might be called luxuries, our steelhead pack was consequently small.

Herring.

Pender Harbor herring have been much in evidence of late, taking the place of the Point Grey, which were conspicuous by their absence. Many reasons have been attributed as the cause of the latter, but after all they did not turn us so it is no use discussing them further.

Practically all the pack of the dry-salt herring has been shipped to the Orient. Prices advanced somewhat, and shippers who were fortunate enough to send their packs on consignment had no reason to complain of their receipts. There will be very little more offering, and now the market is firm with several enquiries that cannot be taken care of.

Halibut.

The holidays around X'mas and the New Year affect the sales of fish, and consequently the market is very quiet. High prices were looked for on fresh halibut this year and were obtained. Eight cents was nothing out of the ordinary, and Seattle paid one vessel 10c and a bonus for her catch.

The schooner "Knickerbocker" operated by the New England Fishing Company, fishing out of Vancouver, B.C., arrived during the latter part of December with a record catch for a vessel of her rig and size, that is with 200,000 lbs. of fresh halibut. This may seem a large amount of fish at one go, but when one takes into consideration the fact that the New England Fishing Company, considers this a mere drop in the bucket, it will give the readers of the "Canadian Fisherman" an idea of the quantities of this fish handled by this company. It is no uncommon thing for them to send East a special train of halibut alone.

In Seattle they have evolved a system of handling halibut, worthy of mention. The majority of the halibut fishing boats out of Seattle are independently owned. On arrival of the vessel in Port with her catch, the captain proceeds to the fishermen's rooms, which are situated over the Pacific Net and Twine Company, who operate their own dock. In these quarters is a room where the buyers of the various fish companies in the

East congregate and there bid for the cargo of the vessel just arrived. If the sale is completed, the vessel proceeds to the premises of the successful bidder and there discharges her catch. It is needless to point out the advantage this plan has to both fishermen and the buyer, and its successful working has proved it to be a boon to all concerned.

Codfish.

There has been considerable discussion of late as to the chances of marketing the famous black cod. Even the most ardent supporters of the Maritime Provinces have to confess that there is no fish equal in quality to our black cod. That it will become a very great favorite is understood, and the man lucky enough to take hold of the proposition in the right way will be well repaid for the trouble.

We have an almost inexhaustible supply of grey and red cod, but our fisheries, being only in their infancy out here, we cannot expect to do everything at once. Their turn will come later.

Mild-cured Salmon.

There has been a considerable easing up of late of the holdings on the Coast. British Columbia is lucky enough to have had such a small pack, as compared with that on the Sound. The original market, "Germany," is undoubtedly getting all she can through neutral countries. Owing to the fact that steamships operating to these neutral countries have limited cold-storage capacity, shipments are slow. Packers have not been selling below cost, and apparently have no need to, as this matter is adjusting itself.

Shellfish.

Seattle, as well as Vancouver, has noticed that "war" times mean less oysters. Sales in Vancouver have been very small. Some handlers cutting out the line altogether. People all realize that however nutritious oysters are, still owing to the difficulty in transportation, they must be classed as a luxury out here. Then, again, there are the small local or Esquimalt oyster, which serves for cooking purposes.

Shrimps.

These are now coming in again, and importations from the Sound consequently being less.

Canned Salmon.

So far, the railways have not fulfilled the example of the American lines in lowering prices on this commodity, to allow competition with the rates quoted via the Panama Canal. There has been a considerable clearing-out in England of the higher grades and sockeye flats are practically off the market, being sold out.

There are practically no sockeyes held in first hand now. Movements of the cheaper grades are somewhat slow, but there is no doubt but that the clearing-out of the sockeyes will mean a considerable movement in the cheaper grades.

There was some slight agitation by a rumor that the War Office were seeking Alaska Canned Salmon, but British packers have been re-assured on this point.

Canned Salmon.

Sockeye, Talls	8.25
" Flats	8.75
" ½ Flats	10.25
Cohoes, Talls	4.75
" Flats	4.75
" ½ Flats	6.25
Pinks, Talls	3.50
" Flats	3.50
Chums, Talls	2.75
" Flats	2.75

Wholesale Fish Prices, Vancouver Market.

Smoked Fish.

	Per lb.
Finnan Haddies, Atlantic 15s and 30	.09
Fillets, Atlantic 15s	.10
Bloaters	.06
Kippers, local	.07
Salmon	.12-15
Halibut	.12

Frozen Fish.

Salmon, Steelheads (round)	.09
Salmon, Cohoes (round)	.06
Halibut	.08-.09
Smelts	.05
Black Cod, Alaskan	.08

Fresh Fish.

Salmon, Steelheads	.09
Salmon, Redsprings	.10
Salmon, White Springs	.05
Halibut	.08-.09
Cod	.06
Smelts	.07
Herring	.04
Soles	.05
Whiting	.05
Skate	.03
Perch	.06
Rock Cod	.05
Red Cod	.03
Bass	.06
Black Cod, Alaskan	.08
Shad, Columbia River	.08

Pickled Fish.

Alaskan Black Cod	.08
Pacific, whole cod	.07
Herring, local	.06
Herring, Atlantic	.05

Perpared Fish.

Acadia, No. 2, Boxes	.14
Acadia, Strips	.13½
Acadia, Tablets	.14
Bluenose	.09½
Pilot	.08½
Nova Scotia Turkey	.07½
Pacific Boneless	.08½

Shell Fish.

Crabs (Boundary Bay)	Doz. $1.00	$1.20
Shrimps	per lb. .12	.18
Clams		.03
Clams (shelled)	per gal.	1.25
Oysters, Eastern (Shells)	per doz.	.25
Oysters (Bulk)	per gal.	2.85
Oysters Olympia (Bulk)	per gal.	3.25

General Notes.

It is understood that at a meeting of the Standard Fisheries, Limited, the company was offered a substantial cash sum for their holdings, by a gentleman who is at present in England endeavoring to reorganize the late B. C. Fisheries, Limited. We hear that the directors and shareholders of the Standard Fisheries, Limited, refused this offer, as they have been assured a considerably better one by the financier who contemplates forming a very large development com-

pany, after the present financial difficulties are adjusted, and the intention is to include a fishing company in the parent company.

There was also some little stir of late, as it was rumored that the B.C. Fisheries had been re-organized, and that their halibut boats would shortly proceed to the halibut grounds again, but so far no confirmation has been received of this.

The Salmon Fishermen of the Pacific

By F. WALD.

Just as it takes an army of men to harvest the agricultural crops of the Middle West, so does it take an army to harvest the products of the sea on the Pacific Coast. To gather and pack so immense a harvest from the sea requires close to 30,000 men, and a good share of these men are fishermen. A good share of the fishermen use motorboats—most of them, in fact— so it is readily seen how just one industry on the Pacific Coast provides an immense market for boats and motors.

When the salmon run is on, which is from about June 1st to October 1st, although the heavier runs are during the summer months, you will find the salmon fishermen in every salt waterway from the Sacramento River to the Bering Sea, spreading their nets and seines and combing the waters clean in an effort to get their share of the great food fish that to-day helps feed the entire world.

On different parts of the coast these fishermen have different ways of fishing. On the Sacramento and the Columbia rivers and also in British Columbia, the majority of the fishermen are gillnetters. These men use comparatively small boats, usually about 26 or 28 feet in length, powered with from 4-h.p. to 6-h.p. motors. Their nets are long but not very deep, and they fish on the surface of the water, the fish becoming entangled with their gills in the mazes of the thread or cord, where they are held till the fishermen extricate them.

On Puget Sound and in Alaska, however, the most popular way of fishing is what is known as purse-seining. The seines that these fishermen use are much larger than the gillnets, being sometimes more than a quarter of a mile in length and many fathoms deep. The method of fishing is to surround the schools of fish with these big seines, and then by pulling in on the ropes that hold the seines, gradually to purse them together until the fish are drawn into a struggling mass within the purse alongside the boat, from which they are speared or gaffed and thrown aboard. The purse-seine boats are larger, 45 to 50 feet and sometimes even 70 feet in length. The crews have regular sleeping and living accommodations aboard and large fish tanks under the decks carry as high as several thousand fish at a time.

It is estimated that on the Columbia, from the Dalles down to the mouth of the river, there are eight thousand gillnet fishing boats in operation during the height of the season. Ten years ago these boats were all provided with leg o' mutton sails, and when the wind went down, their owners rowed them. The introduction of the marine gas engine changed things, and now, while the river is dotted with these fishing boats during the salmon run, scarcely a sail is to be seen. It used to be more picturesque to see this great fleet start out from Astoria and drift down to the mouth of the river with their thousands of white sails, but certainly the motorboats of to-day are more practical. They save the fishermen time and thus increase their catches and their earnings. Also their safety has been increased very materially for in the former days when they had no motors the tide carried them out across the bar at the mouth, and many of them were drowned in the breakers. To-day, with their motors, they are able to take care of themselves, and few accidents occur.

The greatest commercial salmon of Puget Sound is the sockeye, which enter the Sound every year in large numbers, heading toward the spawning grounds of the Fraser River to the north. Their course is in through the Strait of Juan de Fuca, through the San Juan Islands into the Gulf of Georgia and then into the Fraser. The best fishing grounds are, therefore, in the Strait and among the Islands for the Sound fishermen, and in the Gulf for the British Columbia fishermen. Every four years there is a great run of these fish, eight or ten times as great as the run in the other three years, and then a great fleet of fishing boats is assembled to catch every fish that the cannerymen can handle. The year of 1913 was such a year, and the pack was about 2,000,000 cases, where in off years it is often less than 200,000 cases.

The cannerymen own many salmon traps, long rows of piling along the shore, covered with wire webbing, that catch hundreds of thousands of fish in a season, but they are also dependent upon the fishermen. In the big fourth years, the Puget Sound purse-seiners operate among the San Juan Islands, fishing for sockeyes. In the off years, they have of late been fishing out toward Cape Flattery and the open ocean. In both places their boats encounter rough water, and are consequently heavily-built and well-powered, seaworthy vessels that are prepared to go to sea if necessary. The crew of a purse-seine boat consists of about eight men, and they fish on shares, usually one-half to the skipper and the balance evenly divided among the rest of the crew. When a boat has a good season—and nearly all of them did this year—the owners of these boats make big money, and many a member of a crew has made enough in one season to enable him to build his own boat the following year.

The seiners usually run into some cove among the islands for the night, where they are sheltered from the weather. Those on the smaller boats sleep in camps on the shore, while those on the larger ones sleep aboard and have all the comforts that are provided on the ordinary cruising yacht, of moderate size.

Early in the morning they are under way and leave the coves for the banks outside. Off in the distance a flash of silver on the surface of the water marks the approach of a school of salmon. The boat that is nearest or that is fastest reaches the school first, and circling around it lets out its big purse-seine from the turning table on the stern of the boat. The fish are completely surrounded. Then the power winch, usually run from the main motor, is started. The rope that runs along the top of the seine is drawn in by the winch and the seine is gradually pursed into a smaller compass at the top, until it becomes a small circle alongside of the boat. Then up comes the net, and if it is a lucky haul, the bottom is filled with a writhing, kicking mass of silvery salmon. Men spring into their dinghies alongside the boat and with their long gaffs they spear the fish and throw them aboard, and into the tanks they go. The operation is repeated until the tanks and decks are loaded to capacity and then

the boat heads for the nearest cannery tender. These tenders, some of them motor-boats and some of them steam, are usually waiting on the fishing banks with scows alongside, and they take all the fish they can get from the fishermen.

When both the tanks of the tender and the scows alongside are loaded, they head for the cannery that they represent, turn over their fish to the packers and come back for more. It is a busy scene and there is no loss of time either on the part of the cannery, the fish-buyers or the fishermen. Time is money when the fish are running, and everything is figured out to give the greatest facility.

The main run of fish lasts only four or five weeks. Then the fishermen leave the San Juan banks and scatter out over broader areas, fishing for the Fall salmon or Cohoe, which spawns up many different streams and therefore, can be found in different parts of the Sound. But in the last two years the fishermen have figured that the surest place to catch the Fall salmon is out at the Cape when they first start in from the ocean. Last year and the year before there was a great fleet of seine-boats at Neah Bay, near the Cape, and these boats during the day fished the banks for 30 miles out to sea. This resulted in the development of a larger, heavier type of fishing boat, known as the deep-sea seineboat, with raised decks and heavier timbers and more power, for the boat that fishes at Cape Flattery must be in position, if necessary, to stand some hard handling. Most of the Summer, however, the weather is calm, and as a matter of fact there were hundreds of smaller boats at the Cape which were known as "trollers" that were little more than open runabouts. The "trollers" fish with line and spoon and catch the fish one or two at a time. With Fall salmon bringing high prices, they were able, by taking a small boatload a day, to make fairly good money, and there have probably been over four hundred of these boats, ranging from 24 feet to 35 feet in length, built on the Sound for trolling during the past three years.

The British Columbia fishermen largely still stick to their oars and their sails, partly because the Government prohibited the use of motors for a long time, believing that motorboats increased the catch of fish too greatly, which was against their policy of conservation. These rules have been relaxed somewhat in the last year or two, however, and the market for marine motors in British Columbia, as a result, has been on the increase.

The Alaska fishermen probably are called upon to undergo the greatest hardships. Those in southeastern Alaska, it is true, fish largely in protected waters, although in the past year there was a large fleet of trollers and seiners fishing on the west coast, outside the islands. But the fishermen of Cook Inlet, Bristol Bay and the Bering Sea have to do most of their fishing in open water, and in water that is subject to sudden and heavy storms. As a consequence, the purse-seine boats that have been built for use in the North have been even larger and heavier than those of Puget Sound, big boats that could ride out a storm if necessary in the Bering or buck the tide-rips at the entrance to Cook Inlet. But the canneries in Alaska get the fish and the boats come back safely in the Fall, with seldom one reported missing. So, while the Alaska fishermen undoubtedly have their hardships, they are a hardy lot who are used to facing dangers and thinking little of it, and who know how to handle their boats and their motors and to bring in the fish in spite of wind and weather.

What is true of the Alaska fishermen is true of all the salmon fishermen of the Pacific Coast. They are good navigators and good engineers, men who are willing to take chances for the stakes that the game offers, and moreover, they are good business men who make the game pay them. They usually come home with the fish and they usually end the season with larger bank rolls than when they started. Good boats and good motors are decidedly a business necessity for them and they are keen and prosperous enough to be able to buy what they need.—Motor Boat.

GOVERNMENT DAILY BAIT REPORTS OF GREAT VALUE TO FISHERMEN.

For the purpose of assisting masters of fishing vessels to locate bait supplies during the cod-fishing season, and thus avoid the great loss of time annually spent in searching for bait from harbor to harbor, the Department of Fisheries, in the course of the year, 1913, put into operation a system whereby definite information concerning supplies along certain stretches of the Atlantic seaboard was collected by the local officer of the Department and despatched, daily, by telegram, to certain important sea ports, and there posted up.

The number of ports selected as receiving stations had necessarily to be limited, but, through the courtesy of the daily papers in Nova Scotia in which the telegrams were published each day, the smaller fishing communities derived the benefit of direct advices as to available supplies of bait.

During the spring ninety-three telegrams were sent from Magdalen Islands, Souris, P.E.I., and Queenport, N.S., to Canso, N.S., Halifax, N.S., Lunenburg, N.S., and Riverport, N.S. During July and August five hundred and fourteen telegrams were sent from Grand Mira, N.S., Little Bras D'Or, N.S., Petit de Grat, N.S., Lower L'Ardoise, N.S., Canso, N.S., Wine Harbour, N.S., Tangier, N.S., and Musquodoboit Harbor, N.S., to North Sydney, N.S., Canso, N.S., Halifax, N.S., Lunenburg N.S., Riverport, N.S., and Shelburne, N.S.; also from Lockeport, N.S. to Canso, N.S., Halifax, N.S., Lunenburg, N.S., and Riverport, N.S.; from Shag Harbor, Middle West Pubnico and Digby, N.S., to Halifax, Lunenburg, Shelburne and Lockeport, N.S.; from Bedeque and Leoville, P.E.I., to Caraquette and Shippigan, N.B.

During September, October, November and December one hundred and seventy-five telegrams were sent from Grand Manan, N.B., Pennfield, N.B., and St. John, N.B., to Digby, N.S., Yarmouth, N.S., Pubnico, N.S., and Clarke's Harbor, N.S. Each telegram sent out contained specific information as to bait supplies at all the important points within the district of the officer who despatched the message. Copies of all telegrams were mailed to the Department at the end of each week, and the work closely followed.

The benefits derived from the first year's operation of this service may be gathered from the following synopsis of the reports from the officers directly concerned:—

The officer at Grand Manan, N.B.,, reported that the service considerably helped masters of vessels to locate bait supplies. A number of these vessels called at Louisburg during August and generally obtained bait.

The officer at Guysborough reported that masters and owners of fishing vessels benefitted greatly by the information posted up at Canso.

The officer at Wine Harbor, N.S., reported that, as

a result of the telegraphic information sent to Canso, Halifax, etc., during July and August, several vessels baited at Port Beckerton and other harbors in his district. All the net fishermen much appreciated the fact that the telegrams sent out brought buyers to them who paid fair prices for their herring.

The officer at Musquodoboit Harbor, N.S., reported that during July and August five vessels and a number of boats baited at Owl's Head. The telegraphic information benefitted herring fishermen by bringing twenty-five sail of boats from Tancook to Eastern Passage, where they averaged about one hundred barrels per boat.

The officer at Lunenburg, N.S., reported that the bait telegrams were very beneficial to the managing owners of vessels at Lunenburg. As soon as they knew where bait was they telegraphed the information to their captains.

The officer at Allendale, N.S., reported that the reports sent out were the means of bringing a number of vessels to Lockeport, and other points in his district, for bait, which was a decided benefit not only to the vessel fishermen, but to the local net fishermen as well. All were greatly pleased with the service.

The officer at Lower Shag Harbor reported that the service was very satisfactory to trap owners and net fishermen as they readily sold their bait during the months of July and August.

The officer at Middle West Pubnico, N.S., reported that the masters and owners of vessels fresh fishing off Yarmouth made much use of the bait reports from Grand Manan, N.B. Several vessels went from Pubnico to Grand Manan for lobster bait, and were enabled to load and make their trip within two weeks; previously, owing to the lack of definite information regarding catches of bait, such a trip usually occupied four or five weeks' time.

The officer at Digby, N.S., reported the local fishermen as having declared that by knowing exactly where to get bait they caught much more fish than they would have caught without such knowledge. The captain of the schooner Cora May depended altogether on the reports in order to get his bait. The captain of a vessel buying fresh fish, and who had to keep the fishermen supplied with bait in order to buy their fish, also depended entirely on the telegraphic reports. In securing bait supplies another captain said that he had been able in many instances to gain several days' fishing and at times a whole trip by the informtion contained in the bait telegrams. The gasoline boats also benefitted greatly by the information. In good fishing weather one boat would be sent directly to where bait was reported as obtainable for enough to supply several boats; thus fishing went on without interruption. This officer received many more communications from captains of vessels telling of the benefits derived from the bait reports.

The officer at Grand Manan, N.B., reported that the service proved very beneficial as many fishing vessels from Nova Scotia got bait there for immediate use; also large quantities of bait were secured for lobster fishing purposes. The captain of a Digby vessel informed them that the Daily Bait Reports had been of great service to their fishing fleet, by saving them a lot of time and trouble, as they knew just where they could obtain their bait.

TO RESTRICT STEAM TRAWLING.

U.S. Proposal to Conserve Supply.

In a report on an investigation of trawl fishing in the Atlantic, submitted to the House to-day, Commissioner Smith, of the Bureau of Fisheries, urged that the United States, with the co-operation of Canada, Newfoundland and France, safeguard the future supply of fish by restricting to certain definite banks and grounds, the use of any kind of vessel using trawls to catch fish, beam or otter.

The commissioner proposed that the taking of fish, except shellfish, by means of the otter trawl or beam trawl, or by any other apparatus drawn over the ocean bottom by a vessel in motion, be prohibited on all bottoms in the Atlantic Ocean outside of territorial jurisdiction north of the fortieth degree of north latitude, except Georges Banks, south channel and Nantucket Shoals east of the meridian of Sankaty Head on Nantucket Islands.

Such a plan, the report said, would return to the otter trawlers sufficient ground for their work, but would not exclude the line fisheries, and would reserve to them exclusively the banks to which they make more than two-thirds of their trips.

CANADIAN FISHERIES REPORT 1913-14.

That the total value of all kinds of fish products and marine animals taken by Canadian fishermen last year was $33,207,748 is shown by the annual report of the Marine and Fisheries Department, just issued. The value falls short of the preceding year by $181,716. There was a total of 71,776 men employed in fishing on 1,992 vessels, tugs and smacks and 37,686 boats, while 26,893 were engaged in canneries, etc., on shore. Gasoline boats are ousting the sailing vessels, 8,700 having been used last year, an increase of 2,789.

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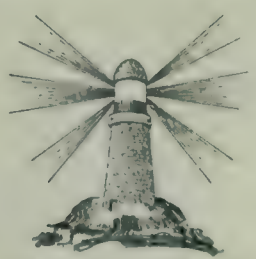

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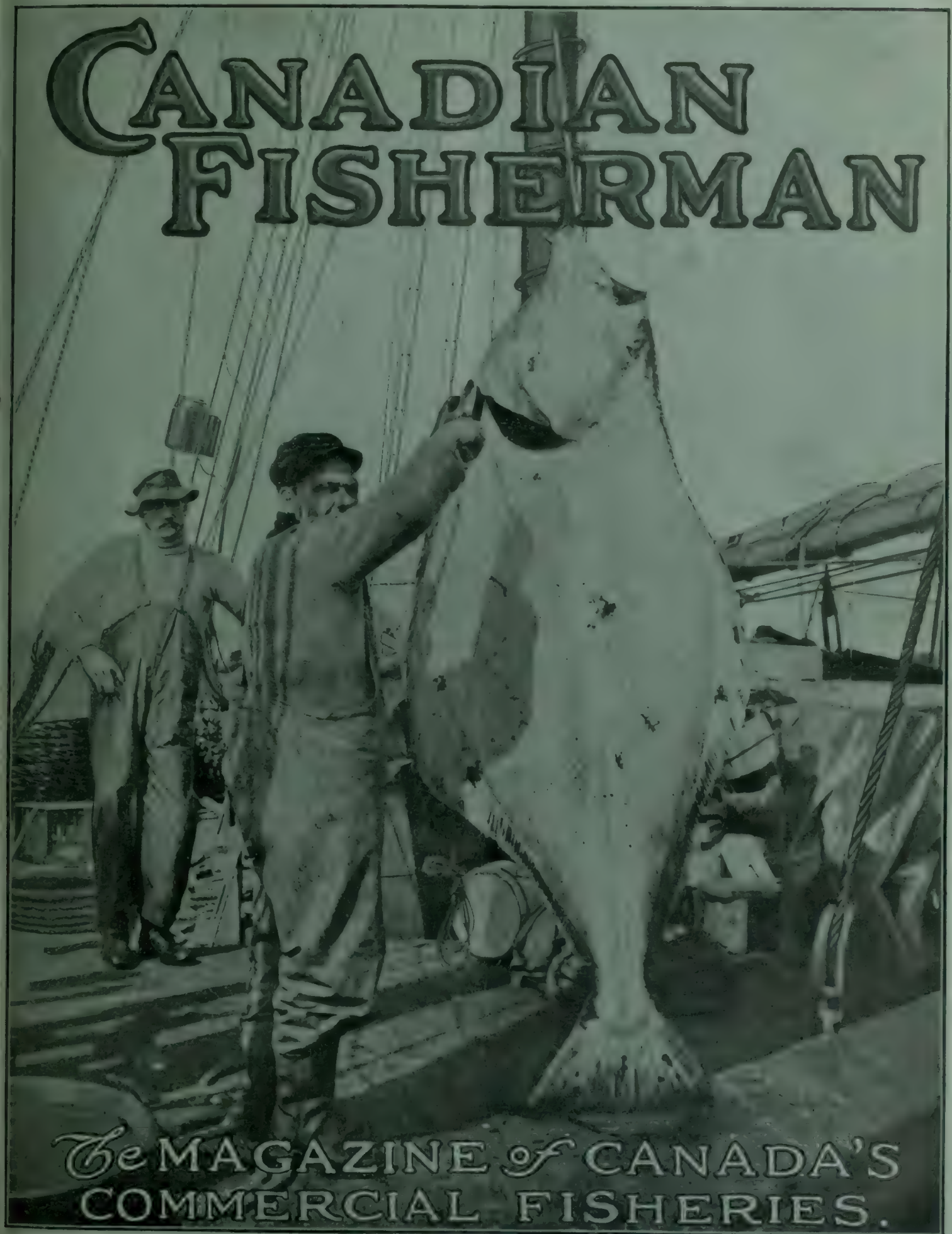
Vol. II. MONTREAL, MARCH, 1915 No. 3

CANADIAN FISHERMAN



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On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license

To The Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

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THE MINISTER OF COLONIZATION,
MINES AND FISHERIES OF THE PROVINCE OF QUEBEC

Department of Marine and Fisheries

FISHERIES:

In addition to the full statistics of the Fisheries which are published yearly in the Annual Report, the Department issues monthly bulletins containing statistics of the sea fisheries and general information in regard thereto. Copies of these will be sent free to any applicant.

The value of the Fisheries of Canada is now about $34,000,000.00 annually.

The demand in the home markets for fresh and mildly cured fish, is expanding very rapidly. The Department pays one-third of the express charges on less than car-load lots on all shipments of such fish from the Atlantic Coast to points as far west as the eastern boundary of Manitoba, and from the Pacific Coast, as far east as this boundary. Over 1,000 tons more fish reached Montreal for use there and distribution to other points from the Atlantic Coast, under this arrangement last year than the year before. The growth has been equally satisfactory from the Pacific Coast to the Prairie Provinces.

Close Seasons for Fish in Force on December 1st, 1913

Kind of Fish:	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.
Bass (Achigan)	.....	.....	.....	1 April to 15 June.
Maskinonge	.....	.....	.....	15 April to 15 June.
Ounaniche	.....	.....	.....	1 Oct. to 30 Nov. [i]
Oysters	b[1] Jan. to 30 Sept.	b[1] Jan. to 30 Sept.	b[1] Jan. to 30 Sept.	b[1] Jan. to 30 Sept.
Quahaugs	Oct. 1 to May 10 July 1 to Aug 31.	Oc.. 1 to May 10 and July 1 to Aug. 31.	Oct. 1 to May 10 and July 1 to Aug 31.	.....
Pickerel	.....	.....	.....	April 15 to May 15.
Salmon (netting)	Aug 15 to March 1.	Aug. 15 to March 1.	.....	Aug. 1 to April 30.
Salmon (angling)	e Aug. 16 to Jan. 31.	Sept 16 to March 31.	.....	Sept. 16 to April 30.
Smelts	f April 1 to July 1.	f March 1 to June 30. June 1 to July 1.	f April 1 to June 30.	.....
Sturgeon	.....	.....	.....	June 1 to July 1.
Speckled Trout	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to April 30
Salmon Trout	.....	.....	.....	Oct. 15 to Dec 1.
Whitefish	.....	.....	.....	.....

Kind of Fish:	Ontario.	Manitoba.	Saskatchewan.	Alberta & British Columbia.
Bass (Achigan)	a 15 April to 15 June.	.....	.....	.....
Maskinonge	15 April to 15 June.	.....	.....	.....
Ounaniche	.....	.....	.....	.....
Oysters	.....	.....	.....	.....
Quahaugs	.....	.....	.....	.....
Pickerel	c April 15 to May 15.	April 15 to June 20.	d April 1 to May 15.	d April 1 to May 15.
Salmon (netting)	.....	.....	.....	.....
Salmon (angling)	.....	.....	.....	.....
Smelts	.....	.....	.....	See regulations.
Sturgeon	.....	g May 15 to June 15.	g May 15 to June 15.	g May 15 to June 15.
Speckled Trout	Sept. 15 to April 30.	.....	.....	.....
Salmon Trout	h Nov. 1 to Nov. 30.	.....	.....	.....
Whitefish	h Nov. 1 to Nov. 30.	Sept. 15 to Nov. 19.	i Sept. 15 to Dec. 15.	i Sept 15 to Dec. 15.

a—Except in Lake Erie west of Pt. Pelee and around Pelee Island, where close season is May 25 to July 15.
b—Except on leased areas, where close season is from 1 July to 31 Aug.
c—No close season in St. Clair River and off Lambton County.
d—Except in waters north of or intersected by 54th parallel north lat. between eastern boundary of Saskatchewan, and 109th meridian and in waters intersected by or north of 55th parallel n. lat. west of this meridian to western boundary of Alberta, where there is no close season.
e—Except in Cape Breton Island, where close season is from Sept. 27 to May 31.
f—Bag-net fishing season Dec. 1 to Feb. 15; gill-net fishing season Oct. 15 to Feb. 15. Licenses required for bag-nets or gill-nets.
g—Sturgeon fishing prohibited until Jan. 1, 1916.
h—No close season in Lake Erie.
i—Except in waters specified in (d) where close season is from 1 Oct. to Nov. 30.
For British Columbia See Regulations.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA, THE SCIENCE OF THE FISH CULTURE AND THE USE AND - VALUE OF FISH PRODUCTS -

F. WILLIAM WALLACE
EDITOR

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Official Organ of the Canadian Fisheries Association

Vol. II. MONTREAL, MARCH, 1915 No. 3

INAUGURATION OF THE CANADIAN FISHERIES ASSOCIATION

A Movement of Great Importance in the Canadian Fishing Industry Successfully Organized.

Monday, February 15th, 1915, will become a memorable date in the records of the Canadian Fishing Industry, as it marks the successful inauguration of the Canadian Fisheries Association. In response to the invitation of the Committee responsible for the movement, representatives of the Fishing Industry all over Canada met in Ottawa, enthusiastic and earnest in their desire to bring the Fisheries into its rightful position in the forefront of the Dominion's basic industries.

The idea was crowned with success from its inception—a truly remarkable fact when one considers the wide-spread interests involved and the scattered nature of the trade. Representatives from the Pacific, the Great Lakes, and the Atlantic, met on common ground and were unanimous in the idea that it was time Canada's great fishing industry was organized for the promotion and development of the fisheries upon commercial, scientific and educational lines.

The fisheries of Canada have been exploited for over two hundred years—in fact, the colonization of the country is largely due to the prolific fishery resources of our waters drawing the venturesome mariners of Europe to our eastern shores. Though long established, the fisheries of Canada have remained in a state of insularity devoid of any organized effort to work for a common purpose for the good of the industry as a whole. Of late years, the development of the industry has brought many difficult problems to light —problems which no particular section or interest could adequately deal with alone—and when the idea of an Association was promoted, the project received the cordial endorsement of every person interested in the welfare of the fisheries.

The universal encouragement according the movement by the fishing interests of the Dominion showed conclusively that an Association was much needed, not only to stimulate and promote the growth of the industry, but also as a means of bringing the varied branches of the trade together for their mutual benefit.

THE INAUGURAL MEETING.

The meeting, at which the Association was formally organized, was held on the afternoon of February 15th in the Chateau Laurier, Ottawa. In spite of the short notice given and the demands of the Lenten season, an unusually representative number were in attendance—fish men from east and west being present to assist in launching the new organization.

Mr. S. Y. Wilson, Halifax, N.S., took the chair, with Mr. F. W. Wallace as Acting Secretary. After a short address in which he explained the object of the gathering and the value of an Association, the Chairman pointed out that the Canadian Fishing Industry at the present time had an annual value of $34,000,000. "A large sum, no doubt, but nothing to what it should be. The Dominion has the greatest and most prolific fishing areas in the world, but at present, our fisheries are in their infancy. The home consumption

of fish food is very small and our fishery should have twice the value which it has at present. However, we have not the least doubt but what this result will come shortly, and the work of an Association such as we propose with the co-operation of all concerned in the exploitation of our fishery resources will materially increase the value of the Dominion's fisheries."

The motion to form the Asosciation was then put to the meeting by Mr. A. H. Brittain (Montreal) and seconded by Mr. W. Douglas (Winnipeg):—

"That, in the opinion of those present, an organization of the Fishing Industry, to be known as the Canadian Fisheries Association, be formed for the purpose of promoting the conservation and development of the Fishing Industry on commercial, scientific and educational lines."—The motion was carried unanimously.

Professor E. E. Prince, Commissioner of Fisheries, expressed his approval of the move, and outlined the good work done in Great Britain by a similar organization—the National Sea Fisheries Protection Association. "As a Government Official, I hail the formation of the Association with delight, and I highly endorse it as the very thing required to encourage and develop the Industry and aid the Government in their work of bringing the Fisheries itno the front rank of Canada's national resources."

The Secretary then read a large number of letters and telegrams received from individuals and firms in the trade who were unable to attend, and the meeting afterwards proceeded to discuss and amend the Constitution and By-laws already drafted. A large number of amendments were made to suit the requirements of all branches and phases of the industry and the By-laws were adopted by an unanimous vote.

Election of Officers.

The election of officers for 1915 was the next important work of the meeting, and the returns by open nomination and vote were as follows:—

HONORARY PRESIDENT — Hon. John D. Hazen, Minister of Marine and Fisheries.

PRESIDENT—Mr. D. J. Byrne, Leonard Bros., Ltd., Montreal.

FIRST VICE-PRESIDENT—Mr. S. Y. Wilson, A. Wilson, Halifax, N.S.

SECOND VICE-PRESIDENT—Mr. W. H. Barker, British Columbia Packer's Association, Vancouver, B.C.

SECRETARY-TREASURER — Mr. Frederick Wm. Wallace, Editor, Canadian Fisherman, Montreal.

DIRECTORS:

NOVA SCOTIA:

Mr. A. Handfield Whitman, Robin, Jones & Whitman, Ltd., Halifax, N.S.
Mr. H. B. Short, Maritime Fish Corporation, Ltd., Digby, N.S.
Mr. W. P. Scott, Matthews & Scott, Queensport, N.S.

NEW BRUNSWICK:

Mr. Walter Leonard, Leonard Bros., St. John, N.B.
Mr. R. O'Leary, Richibucto, N.B.
Mr. W. S. Loggie, W. S. Loggie & Co., Ltd., Chatham, N.B.

PRINCE EDWARD ISLAND:

Hon. J. McLean, Matthew & McLean, Ltd., Souris, P.E.I.
Mr. Chas. Longworth, Charlottetown, P.E.I.

QUEBEC:

Mr. J. A. Paulhus, D. Hatton Company, Montreal.
Mr. A. H. Brittain, Maritime Fish Corporation, Ltd., Montreal.
Mr. W. R. Spooner, National Fish Co., Ltd., Montreal.

ONTARIO:

Mr. F. T. James, F. T. James Co., Ltd., Toronto, Ont.
Mr. J. Bowman, Bowman & Co., Port Arthur, Ont.
Mr. M. Lapointe, Ottawa, Ont.

MANITOBA:

Mr. J. W. Simpson, Selkirk, Man.
Mr. W. Douglas, Guest Fish Co., Ltd., Winnipeg, Man.

ALBERTA—No Nominations.

SASKATCHEWAN:

Mr. H. A. Green, Aberdeen Fish Market, Saskatoon, Sask.
Mr. W. Reid, Reid & Haddock, Regina, Sask.

BRITISH COLUMBIA and YUKON:

Mr. A. L. Hager, Canadian Fishing Co., Ltd., Vancouver, B.C.
Mr. Peter Wallace, Wallace Fisheries, Ltd., Vancouver, B.C.
Mr. W. Hamar Greenwood, Skeena River Fisheries, Ltd., Vancouver, B.C.
Mr. H. S. Clements, M.P., Prince Rupert, B.C.

The Directors, together with the President, First Vice-President and Second Vice-President, constitute the Executive Committee of the Association. The Canadian Fisherman was unanimously named as the official organ of the Association.

EXECUTIVE COMMITTEE MEETING.

The Executive Committee of the Association held their first meeting on the morning of February 16th, and the following committees were formed to carry on the special work of the organization.

TRANSPORTATION COMMITTEE.—To deal with all matters pertaining to the transportation of fish, deliveries and rates. Members: Mr. A. H. Brittain, Montreal (Chairman); Mr. W. Douglas, Winnipeg; Mr. W. H. Barker, Vancouver; Mr. W. R. Spooner, Montreal.

EDITORIAL and PUBLICITY COMMITTEE. — To encourage the preparation of papers upon subjects pertaining to the fisheries and to produce and distribute information of an educational nature among producers, retailers and consumers, also to educate the public as to the value of fish foods. Members: Mr. J. A. Paulhus, Montreal (Chairman); Mr. F. J. Hayward, Vancouver, B.C.; Mr. F. W. Wallace, Montreal; Mr. J. J. Harpell, Montreal.

GENERAL IMPROVEMENT COMMITTEE. — To encourage improvements in fishing methods, packing, curing, and marketing of fish and fish products. Members: Mr. A. Handfield Whitman, Halifax (Chairman): Mr. H. B. Short, Digby, N.S.; Hon. John McLean, Souris; Mr. R. O'Leary, Richibucto; Mr. W. S. Leonard, St. John; Mr. A. L. Hagar, Vancouver; Mr. W. Hamar Greenwood, Vancouver, B.C.

After the nomination of the above Committees, the Executive moved the following resolution with regard to the new Pickled Fish Inspection Act, which goes into effect on May 1st, 1915:—

"The Association heartily approves the action of the Fisheries Department for the principle embodied in the Pickled Fish Inspection Act which goes into effect, May 1st, 1915."

Fishermen Members.

With the desire to have all persons engaged in the Fishing Industry as members of the Association—fishermen, fish workers, and others actually employed in the producing of fish in the various Provinces, it was thought advisable that local branches of the Canadian Fisheries Association be formed for their benefit. The following resolution was accordingly passed. "That, in the opinion of the Executive Committee of the Association, it is highly advisable that local branches be formed on the Atlantic and Pacific Coasts, as well as at interior points, and the members of the Executive from these sections are strongly advised to proceed, as soon as possible, to the formation of such."

With regard to the aforesaid motion, the President, Mr. Byrne, pointed out the desirability of having the fishermen of Canada actively interested in the Association. It was to the advantage of the whole industry to have producer, distributor and retailer as members and the educational policy of the Association, if followed by these branches, would not only assist in increasing the consumption of fish, but would materially increase the earnings of all. Better methods of catching fish, careful and sanitary handling, packing and curing meant a more appealing product for the consumer. Fish is a perishable and easily deteriorated article which should be carefully handled from the time it leaves the water, and in order to have palatable and good appearing fish it is absolutely necessary that the fishermen themselves assist in employing more up-to-date methods in catching and handling. As it is to their own advantage, Mr. Byrne was of the opinion, that fishermen joining the Association and carrying out its objects would greatly aid in the work of bringing the Canadian Fishing Industry up to a higher and more profitable plane.

For the purpose of having fishermen and fish workers as members, the Executive Committee will consider a scale of subscription fees which will come within the means of small wage earners and enable them to enjoy the privileges of the Association and its benefits in an educational way.

1915 - MARCH - 1915

FISH CALENDAR

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
-	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	-	-	-

NEW BRUNSWICK FISHERIES.

The total value of fish caught in New Brunswick waters during the fiscal year 1913-14, reached the splendid total of $4,308,707, against $4,264,054 the previous year. Herring showed an increase, the amount caught being 197,297 cwt., against 189,200 the year before. There was a falling off in sardines, the catch last year being 141,384 barrels as against a take the previous year of 280,282 barrels. The fishery officers are inclined to become a little pessimistic over the sardine outlook, but the little fish have a habit of playing hide and seek that is a little difficult to follow at times. The salmon catch showed a marked improvement. The catch in Bay of Fundy waters amounted to 3,998 cwts., while on the northern shore of the province the catch was 3,086 cwts. greater than the year before. Inland salmon catching also shows a gratifying increase over the previous year. The total marketed value of the salmon catch in New Brunswick was $269,775; of lobsters, $692,810; cod, $404,769; herring $808,910; sardines, $676,668; haddock, $25,061; hake, $88,522; pollock $76,373; mackerel, $171,806; shad, $23,360; alewives, $60,386. The total number of fishermen and others engaged in the fishing business in New Brunswick in 1914 is placed at 21,876.

FIRST ANNUAL DINNER OF THE CANADIAN FISHERIES ASSOCIATION

The Record of an Interesting Event in the Canadian Fishing Industry

Ottawa, more than any other city in the Dominion of Canada, has been the rendezvous for a large and varied assortment of gatherings and conventions, fraternal and otherwise, but none excited more interest or excelled in importance the Inauguration Meeting of of the Canadian Fisheries Association. The successful outcome of the Association's inauguration was fitly wound up with the dinner which was held in the Chateau Laurier on the evening of February 15th.

It was essentially a "Fish" Banquet with a specially prepared Menu in which fish was the piece de resistance. The gentlemen who sat down to the tables in the handsome Marie Antoinette banquet room, though not all "fish" men, were representative of the Industry from Coast to Coast. The Fisheries representative from the Pacific exchanged notes and viewpoints with his brother from the Atlantic, while the Prairie and Great Lakes men fraternized with both, and the ideas of three thousand miles of widespread trade interests centred in the one common topic of the Association and its objects.

Hon. John D. Hazen
Minister of the Naval Service, Honorary President

In addition to the actual members of the industry, the Association had the pleasure of the company of several prominent Government Officials from the Marine and Fisheries Department, and equally important to the fishing interests, were representatives of the transportation and railroad concerns at the dinner. The Minister of Marine & Fisheries, Hon. John D. Hazen, Honorary President of the Association was the guest of the evening along with Mr. J. O. Belleisle, Inspector-General of Fisheries of the Province of Quebec, Mr. Clarence Jamieson, M.P., for Digby Co., N.S., and Mr. Geo. Bradbury, M.P. for Selkirk, Man. Other prominent Provincial officials regretted their inability to attend, but expressed their cordial sympathy with the Association and its objects.

Mr. D. J. BYRNE, President of the Association, acted as Chairman, and after proposing the first toast, "The King," said:—

At this inaugural dinner, on the opening of our new association, the idea, I think, was to be very informal. So informal have you gentlemen been that you elected a President without his knowledge or consent, and placed him in rather an awkward position, since he does not know why you did it, nor how he shall express himself as the occasion requires.

Since the dinner is very informal, we have decided also to change the formal toast list, as noted on the menu, and to limit the toasts to two.

The first toast will be "The Fisheries of Canada." And in this connection I need hardly say how proud we are to-night to have with us the Honorable Minister of Marine and Fisheries, Mr. Hazen (applause), who has taken the time, out of his very busy and very much employed day, which runs far into the night when the House is in session, to come and be with us, and therefore show his active interest. We appreciate it, and we want to assure the Honorable Minister and the Department that it will be our wish at all times to work in harmony with them, to work for the best interests of the fisheries of Canada and the fishing industry, and to do what may be necessary to further those interests.

I will ask Mr. Wilson to propose the toast of "The Fisheries of Canada," coupling with it the Honorable Mr. Hazen, Minister of Marine and Fisheries, and also our friend Mr. Belleisle, who represents the fisheries of the Province of Quebec.

In proposing the toast of "The Fisheries of Canada," MR. S. Y. WILSON (HALIFAX) said:—

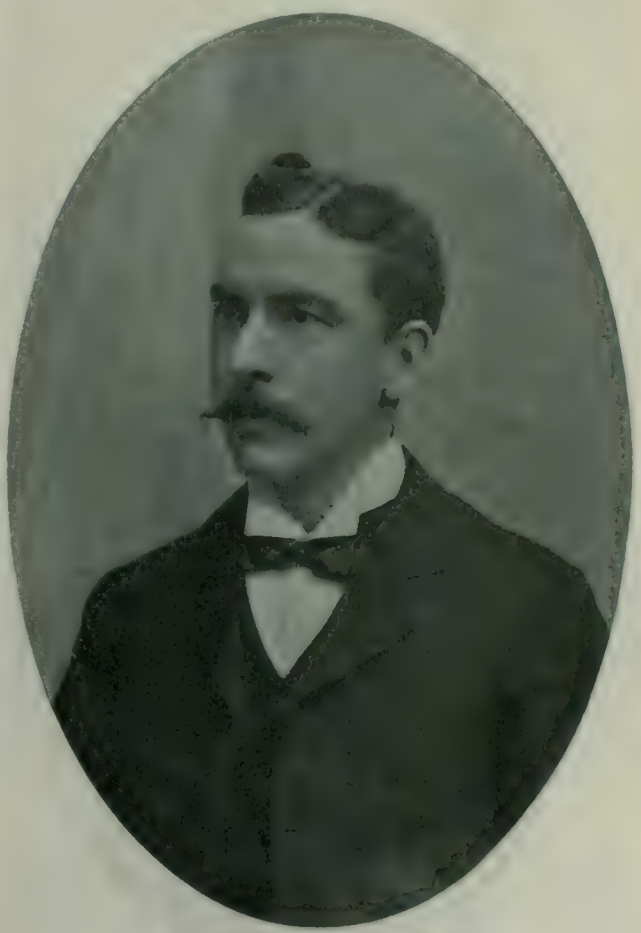
Mr. President, Mr. Minister, and gentlemen,—I am glad to have the honor at this initial banquet of the Canadian Fisheries Association, and I may say the pleasure, of proposing this toast to the success of the fisheries, coupling with it the names of the Honorable Mr. Hazen and Mr. Belleisle. I felt when I was in Montreal a couple of weeks ago that I was making considerable sacrifice in going away from home at that time and in coming back here again after I had been home a week, just at the expiration of a week, to this initial meeting. But I feel that I have been entirely repaid for any effort on my part in regard to it. I think that we have arrived at the stage in the development of the fishing industry of the Dominion of Canada when we are, to use a slang expression, "sitting up and taking notice," and in that respect I hope that the Honorable Minister and Mr. Belleisle likewise will sit up and take notice of this association. For several years past, according to the blue books of the

Department, the value of the industry has been more or less stationary. The variations have not been very great; the variations have not been sufficiently great; and I think perhaps we may say, as the men who are interested in the fishing industry, both from the producers' standpoint and that of the distributor, that we are perhaps somewhat to blame ourselves, but we also think that there are others that are to blame. And in that connection I would not like even to insinuate that the Minister is to blame, for I believe, myself, that the Minister has devoted a great deal of time and a great deal of thought and attention to the fisheries; but the situation as we find it to-day is at the stage where, as I have said before, we are sitting up and taking notice, and I believe we have just arrived at the stage in the trade, or in the industry, where we are beginning to realize that we have been conducting the industry of the fisheries along lines which could not be considered in the best interests of the industry, or on scientific lines.

I don't know if many of you gentlemen here had the pleasure of hearing Dr. Hjort, of Norway, who is one of the high administrative officials of the Fisheries Department in Norway. I had the pleasure of hearing him on two different occasions in Halifax, in regard to the development that has taken place in the Norwegian fisheries during the last ten years, and that was brought about by an organization similar to the one that we have inaugurated to-day. I can only hope that the improvement and development in the industry during the next ten years in the Dominion of Canada will be equal to that which took place during the last ten or twelve years in Norway, which is very much smaller, of course, than the Dominion of Canada, and is not blessed with natural resources, even in fishery matters, as we are in the Dominion of Canada.

The value of the fisheries to-day, according to the blue book, is somewhere about $33,000,000, distributed over the different provinces of the Dominion, the greatest being in British Columbia, which, I think, is given credit for $13,000,000, seconded by Nova Scotia with seven or eight millions, and running down to the Yukon Territory, with something over $50,000.

Now, since we sat in here to-night the Minister made a remark which so coincides with my opinion that I want to congratulate him that he has arrived at that stage where he at least admits that it would be in the best interests of the industry that all regulations with regard to the fisheries should be statutory. That is one of the things that I have felt is a grievance with the "powers that be" for many years past. I am not a lobster packer and I am not an exporter of lobsters to any great extent; so I consider I am not really directly interested in the lobster fishery, although it is one of the largest resources of the Dominion fisheries. It is worth something over four million dollars to the Maritime Provinces, and, as you know, we have a good deal of trouble in the Maritime Provinces with the lobster question. We have not settled it, and it is still unsettled, and one of the great grievances has been in connection with the amendment of the regulations in regard to the lobster fishery; that is, the lobster season is set by Order-in-Council, but very often is changed by—circumstances, I suppose, perhaps would be the better word to use: I was going to use something else. However, it has been very often changed at the end of the season, for various reasons, which I think has not been in the interests of the fishery, and has not proved in the interests of the fishing, and the lobster fisheries is one of the branches of the industry that have been going down. It has been going down for the reason that it has not had the educational side of the industry developed. The Government has from time to time—and perhaps the better word to use there would be the Department—the Government, on the recommendation of the Department, has from time to time made regulations which it considered were at that time in the best interests of the industry. As a matter of fact, they have done what they considered was best, but what has proved not to be entirely in the interests of that particular branch of the industry, and I think that that is one of the reasons we have not made more progress in the fisheries, is the fact that all the legislation we have had has been along the lines of restriction: that is, they have shortened the season, shortened the season,



Mr. D. J. Byrne, Montreal
President of the Canadian Fisheries Association

shortened the season, and shortened the season, which has been in the interests of the conservation of the industry, whereas a campaign of education along the lines of the conservation or preservation of the reproductiveness of the lobster would, in my opinion, have been the salvation of the industry. The same thing could be said in regard to the oyster industry.

There is one thing in connection with the Fishing Industry that I think we all must readily admit, that publicity is a thing to which we have not given sufficient consideration. It is true that individuals have, perhaps, in their own particular locality done more or less advertising and publicity, but I have here a pamphlet which was given to me by a gentleman, who also comes from Nova Scotia, but who was unfortunately unable to attend this meeting, he having been

in Montreal a fortnight ago. It is a little difficult for people to come in from Nova Scotia, and I think for that reason we should value the fact that we have men who have come all the way from British Columbia to this meeting. (Hear, hear.) And, of course, in saying that, I mean to include the intervening provinces as well, but I mention those from British Columbia because they have come the greatest distance. Most people use fish as a necessary evil. That is one of the things we have got to rectify. We as an association must recognize that that is one of our duties. I feel that we ought to rectify it, and I think we can. This pamphlet is entitled "Fish as Food" and is published by the Boston dealers, the Fish Bureau of Boston. Boston is a fishing port, and this is booming Boston. Of course, that is all right, I believe, and perfectly justifable on the part of the Boston people, but we must also admit that what we want is a pamphlet on the Dominion of Canada as a producer of fish, in the first place; then we want to educate the people to eat fish.

Now, most people think that fish does not contain the food value that beef or lamb or pork does. Just listen to this table that I have here, compiled by a gentleman who is an authority on that. The percentatge of protein in beef is given as 17.9, in blue fish 18.8. That is a fish that we do not cultivate in the Dominion of Canada, so we can leave that out of our book, but we do need to fall back on that. Beef ribs contain only 17 per cent of protein, but cod steaks contain 18.1. I'll bet a good many people, even some in this room, did not know that before—that cod steaks have 1 per cent more protein than beef ribs. And so on, going down the list.

Coming up on the car, I happened to pick up the Canada Monthly and my eye dropped on a paragraph in regard to the production of wheat in the west. I am not going to say this to the detriment of the West at all, because I believe that in the western wheat belt we have one of the greatest natural resources that the country could possibly have, particularly under the present circumstances; but in the Canada Monthly it is stated that the production of wheat under cultivation in Manitoba was 15 bushels to the acre; that is, the average production of wheat in Manitoba was 15 bushels to the acre; in Saskatchewan it was 14 bushels, and in Alberta 20 bushels. Taking wheat at $1.00 a bushel on the farm—that is allowing fairly good value to the grower.

Mr. BRADBURY: If you put it at $1.50, that would be better.

Mr. WILSON: A dollar and a half? But is it worth that to-day?

Mr. BRADBURY: Yes.

Mr. WILSON: Well, allowing $1.50 a bushel, that is about $20 to $30 an acre, for all the land. Mr. Bradbury is proud of that, but does he know that we have oyster bottoms in Nova Scotia that will produce $200 to the acre? (Applause.) I do not want to be boastful in the matter at all. I do not want to say that wheat production does not need to be appreciated at all.

Mr. BRADBURY: You don't put in the same labor in cultivating.

Mr. WILSON: We haven't put anything into it, that is just what I want to point out. We have got to educate ourselves. What we have got to do is not simply to produce enough oysters for the Dominion of Canada, but produce more oysters than we can sell in the Dominion of Canada. Then, at the end of the war, it will not be necessary to go to the other side to buy oysters, or to use what Professor Prince sometimes calls "embalmed oysters." I do not mean any reflection on American oysters in that respect. I believe that the best oysters we have to-day are Cape Cods. There is no question about it. The reason for that is the fact that a lot of time and talent have been devoted to the Cape Cod beds and they have been developing there for two or three years. They have been bringing the oysters from outside and developing them there, until they now really pack the best oysters in the United States. That is my personal opinion. Then again, we have any amount of table fish in the Dominion of Canada that we have not taken advantage of. . . . . However, the greater utilization of our fishery resources will come with the greater demand which we, as an Association, hope to encourage and cultivate. . . . Mr. President and gentlemen, I will now ask you to drink "Success to the Fisheries," and to the Honorable Mr. Hazen and Mr. Belleisle, representing the Province of Quebec.

THE PRESIDENT: I will now call upon the Honorable Mr. Hazen to respond to the toast. (Applause.)

HON. J. D. HAZEN: Mr. President, Mr. Wilson and gentlemen,—I want to thank you, members of the Canadian Fisheries Association, for giving me the opportunity to be present at this dinner to-night, and also to extend to the gentlemen who have formed this association my very hearty congratulations upon what they have done. I shall always esteem it an honor that I have had the pleasure of being present at the first annual dinner of an association which, I believe, if properly directed, as it will be by the gentlemen who form its membership, will prove to be of very great advantage in the development of the Canadian fisheries in the years that are to come.

You have proposed a toast to the Fisheries and have done me the honor, Sir, of coupling my name with it and that of my friend from the Province of Quebec. For about three years and a half I have been presiding over the Department of Marine and Fisheries, a Department which has many branches to deal with, and which also includes the Department of Naval Affairs, and while the Department dealing especially with naval matters is one which is of very great interest at the present time, and will undoubtedly be of very much greater interest in the future, when, after this war is over, a new arrangement is being made under which Canada, in common with the other overseas Dominions of the Empire to which we belong, will bear her share in the defence of the Empire, and while the Department includes some things that are of intense interest—tidal survey, hydrographical survey, the St. Lawrence Ship Canal, the St. Lawrence Channel, harbor commissions all over this country—there is no branch of the united Departments that has been of greater interest to me, perhaps because I am a Maritime Province man myself, than has been that part of the Department which deals with the question of fisheries, one of our great natural resources, and a great natural resource which, as Mr. Wilson has said, is capable of so much greater development, of so much greater progress in every way, than it enjoys at the present time. And yet the advance which the fisheries of Canada has made is not a trivial one, or an insignificant one. It is not very many years since the value of Canadian fisheries amounted to about $15,000,000 a year. During the last few years it has amounted to something in excess of $30,000,000 a year. That is only, as yet, an insignificant proportion of what the value

of those fisheries will amount to if the members of this association carry on an active educational campaign to make the people of Ontario and of the Prairie Provinces of Canada understand the very great advantages which fish possesses as an article of food. (Hear, hear, and applause.)

The Department, of course, is subject to criticism, and very properly so. If there were no criticism of the work of the Department, I would consider that the people were taking no interest at all in the work of that Department; and the more interest the Department arouses, and the more well directed criticism that is levelled at it, the better I shall be pleased and the better, I am sure, will be those gentlemen in the Department who deal especially with the fisheries, like the Deputy Minister and the Superintendent of Fisheries. Now, I think this association that has been formed to-day is a move absolutely in the right direction, because I believe that the great work which this Association has to perform is to back up the Department in its efforts to enforce the fishery laws, in order that the fishery wealth of the country may be conserved, and in the second place, to make the people of the country understand the value which fish possesses as a food. (Applause.) If the association directs its efforts in those two directions, I am sure its work will count and it will prove of very great value in the future.

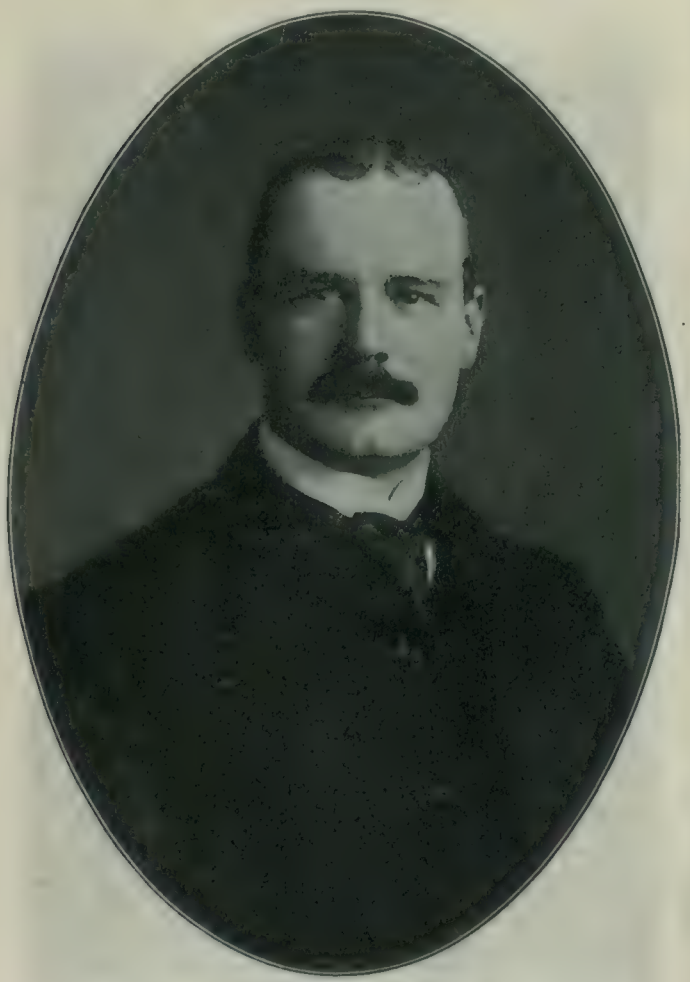
Reference has been made to-night to the regulations which govern the fisheries, and especially the regulations with regard to close seasons, and it has been pointed out that this is a matter of regulation—that the close seasons are not a matter of statute law, are not enactments passed by the Parliament of Canada, but, so far as the close seasons are concerned, they are governed by regulations that are made by the Governor-in-Council, on the recommendation of the Minister of Marine and Fisheries for the time being. I have said, and I say it again, that I think it would lead to a better enforcement of the fisheries laws and would lead to a more strict observance of the close seasons if those close seasons were a matter of statute and if the Minister at the head of the Department did not have the opportunity of advising the Governor-in-Council, and if the Governor-in-Council did not have the opportunity of complying from time to time with the same, that those seasons should be varied and that those seasons should be extended at the requests every year made by fishermen or others interested in fisheries throughout the country. It would make the lot of the Minister of Marine and Fisheries an easy one, because of the pressure that is brought practically every year upon the Department to extend the fishery open season. It is not an easy matter to resist in some cases the opportunities, the requests, the pressure that is brought to bear; and yet I am glad to say that for several years past the Department of Marine and Fisheries has refused to extend a single fishery season. It is my policy to continue to do so, so long as I am Minister of Marine and Fisheries. (Applause.) Now, in taking that course I want the support of the members of this Association. And let me say that sometimes those who are engaged in dealing in fish are the greatest possible sinners in this respect (a Voice: "That is true.")—and this year, as has been the case in every year, requests have been made to us to extend the smelt fishing season in the Maritime Provinces, and attempts are made to bring pressure to bear upon me from my own province. I have declined to extend those seasons in Nova Scotia and New Brunswick this year—the season closes to-day—and yesterday morning I was called out of bed, and a night letter was delivered to me which almost threatened me with political extinction if I did not yield to the application made by a certain firm of fish dealers in the Maritime Provinces and extend for five days the period for catching smelt along the Miramichi and Restigouche. I, however, declined. What will those people say? The telegram intimated that I was a most hard-hearted individual; that I was resisting the call of people who were starving for food, and at the time when the war tax was being imposed upon the people; that it was a most improper course for me to pursue. Yet, I am sorry to say, I turned a deaf ear to that threat and decided, as I have decided for several years past, that

MR. S. Y. WILSON, HALIFAX,
First Vice-President.

the seasons must be observed, and that the season for smelt should not be extended . (Hear, hear.)

Now, I believe it is the best course in the interests of the fishermen and of all those who are engaged in the fishing industry, if the close seasons are proper seasons and have been fixed after enquiry among those who ought to know fishery conditions. If those seasons have been properly closed, it is in the interests of those handling fish, and of the dealers, that the seasons should be observed. While there may be instances where, owing to storms, the catch has not been so much, or where, in connection with the smelt industry, ice has not formed so early in the rivers as usual, and that may occur from time to time, yet I be-

lieve, taking the seasons year in and year out, if we have a closed season fixed on what is right as the average, it is in the interests of the preservation of the fish in this country, of every one engaged in the fisheries, and of the genreal public that those close seasons ought to be observed, and I am trying to observe them to the best of my power, and see what the effect is going to be in some districts on the electors when the time comes for their decision to be made. In the thirty years that I have been in public life, I have found that 'the people of this country have commonsense and intelligence.' I believe that the fisherman has as much as everybody else, and the fishermen will appreciate what is done and, realizing that it is in their



MR. F. T. JAMES, TORONTO,
Director for Ontario.

interests, will appreciate that the Department has back-bone enough to do what it thinks is right in the interests of a great industry of this sort. (Applause.) I ask you all, as men of influence in this country, as men who can largely shape public opinion, so far as the fisheries are concerned. I ask you, whether I am Minister or not, to back up the Department, and the Officials of the Department, in the effort they are making to see that the close seasons are observed and that therefore the fisheries of the country to a very great extent are protected.

It is not a very easy thing strictly to enforce fishery laws in Canada, or, I presume, anywhere else, and yet the men in the Department, with whom I am associated from day to day, are pleased to tell me that they believe that from year to year the enforcement of the fishery laws is being improved. And it was a great pleasure to me this year, in talking with Commander Wakehem, whom probably most of you know, who is one of the best authorities we have on fish in Canada, and who is our chief fishery officer on the Gaspe coast—a district where fishing is so exceedingly important to the people—it was a great pleasure to me to hear from Commander Wakehem this year that he believes that last year, so far as lobster and other fisheries along the Gaspe Coast are concerned, there have been practically no violations of the law, and that up to the time of Confederation down to the present hour, the fishery laws have never been so well supported, so well enforced, and that in his experience he had never received the same support from the Fisheries Department as he had during the past two years in enforcing the laws along that coast.

It is no wonder, Sir, that the fisheries attract attention, and it is quite a surprise to me that they have not attracted more attention in the past, because our Canadian fisheries are the greatest, most extensive and most valuable in the world. In the east of Canada we have over five thousand miles of sea-coast, extending to the international boundary on the St. Croix, between New Brunswick and the State of Maine, around Nova Scotia, up around Prince Edward Island, on up around Quebec and up the Straits of Belle Isle. On the Pacific Coast we have nearly eight thousand miles, I think, of coast line, and in 1913, when I visited British Columbia for the purpose of observing at first hand the fisheries there, when I had the opportunity of seeing the salmon fishing in the Fraser River at the height of the season; of going down on the American side and seeing the traps which they have built there for the purpose of catching salmon as they are going from their spawning ground in the Fraser River, of going up further north, on the Skeena River and to Prince Rupert, which I believe is destined to be the greatest fishing centre in the world—which will be the greatest fishing centre in a few years; of going over to Queen Charlotte Islands, where the whale fishing industry is carried on, and where I had the opportunity of inspecting the whale factory. I was impressed with the fact that the waters along that coast are simply teeming with fish of all sorts and that probably only two sorts have so far been exploited, the salmon and the halibut; that there are other fish there, like herring, cod, etc., that have practically not been exploited at all, and that in the waters along that coast we have food which in years to come will be one of the greatest sources of food supply for the people living in the Prairie Provinces and for the people living in the western part of the Province of Ontario. While we have natural resources that are tremendous on our eastern coast, which we have never fully developed, yet we have, in a sense, even greater on the western coast. So it can be easily said, with truth, and I am glad to say, that Canada is the greatest fishing country in the world. That is, its wealth of fisheries is as yet scarcely known to the people. We are simply on the fringe of the fishing development, and in the years to come, if we wisely enforce our laws and see that our fishing interests are conserved, we shall have, as years go by, food for the millions of people who will crowd into our western country, there making homes for themselves and becoming the greatest producers of agricultural products that the world has ever known.

Now, Sir, the Department has gone along, I think, developing and, I think, improving. We have endeav-

ored to call attention to our fishery wealth on the part of the people of Ontario and the people of the West. Ontario has most valuable fisheries in its Great Lakes. It has white fish of the highest quality, and yet it is unfortunately the case—though we are increasing the output of white fish in the Lakes by means of our hatcheries, though in the Georgian Bay, in Lake Huron and in the other lakes, the product is increasing because, I think, of the hatcheries and for practically no other reason—yet the great bulk of the fish that are caught in those lakes are not consumed in Canada, not consumed in Ontario, but go across into the United States, where the quality is appreciated by the people. It is even worse in the West, where there are extensive white fish hatcheries, in Lake Winnipegosis and Lake Winnipeg, and in the north, where there are sturgeon, pickerel, white fish and salmon trout, and even yet they are scarcely appreciated by the people who live on the prairies to the extent they ought to be.

Now, we have been trying to make the people of Ontario and the West understand a little more about our fisheries than they do to-day. In 1913, for the first time, my Department arranged to make an exhibit of fish at the great annual exhibition in Ontario, at Toronto, which is the greatest annual exhibition that is held anywhere in the world. We repeated that—so successful was it that we repeated that exhibit in 1914. I did not have the pleasure of being at the exhibition in 1913, but I was there last year and I was simply delighted with the exhibit that the Department made, and I took the occasion at the Directors' luncheon, which is held every day, to refer the people of Ontario to that exhibit. The Manager of the Exhibition and the Directors sent us a gold medal for the exhibit, and wrote a letter saying it was the most successful exhibit in the fair. The Manager told me that at my request he would arrange next year that one day should be set apart as Fish Day at the Toronto Exhibition. (Applause.) Each day during the exhibition there is a special interest represented. One day they have Educational Day. On that day some leading educationalist comes to the Directors' lunch, which is one of the features of the fair, and at which the leading citizens of the country sit down and talk about the educational system of the country. They have a Stock Raisers' Day. They have a Fruit Growers' Day. And I suggested to Mr. Oliver, the President of the Exhibition, that it would be a good thing to have a Fisheries Day, and he told me that next year he would have one of those lunches devoted to Fish and serve nothing but fish to those who are guests at this luncheon.

Now, that is what we have been trying for two years to do, and we have not been successful yet, but we are going to follow it out again next year, because I am going to ask Parliament for another grant for an exhibit at Toronto. And I will tell you the reason why. The reason is that the people of Toronto who are dealers in fish have told me that the result of that exhibition has been that during the past two years they have largely increased their sales of fish, that they are making the city of Toronto increase its purchase of fish; that they are making importations also from the Pacific provinces. Next year we are going to endeavor, if we can get space, to have a restaurant where we will give every man, woman and child who comes along a nice piece of fish from the Atlantic or the Pacific, so that they will understand the quality of food that is produced in the waters surrounding Canada, and thus advertise our fishery wealth and our fishery products. (Hear, hear.) We would have tried it last year, but there were difficulties in the way; but I am sure that next year the officials in the Department, with Mr. Found, and others who have been giving a great deal of attention to this matter, in co-operation with the Directors, will be able to work it out, and that will be a still greater advertisement for the fisheries of Canada than has been the exhibit at the Toronto Exhibition in 1913 or 1914.

The Department also has been proceeding along the lines of trying to get transportation into the interior for the fish that come from the Atlantic and the Pacific, by means of proper express cars and cold storage cars. By arrangement with the railways and express companies we have endeavored to do that, and we have made, I think, considerable progress in that direction,

MR. A. H. BRITTAIN, MONTREAL,
Director for Quebec and Chairman of Transportation Committee.

and, Sir, we would have made still greater progress if our friend, Mr. Vickers, and some of our other guests here to-night would only be perhaps—what shall I say?—a little more generous in dealing with the Department in the matter of rates than we have found them to be in the past. (Laughter and applause.) Let me suggest that the members of this Association point out to Mr. Vickers the great public interests that he would be serving and the great good he would be doing to this country in the development of this great industry if he would be generous in the matter of rates and would give the Department better terms on shipments of fish from the Maritime Provinces and the Pacific Coast up to Toronto and Winnipeg and other

cities in the West. It is a matter of education. In a short time, in a few years, when the people of Ontario and the West begin to realize the tremendous advantages that flow from using fish as an article of food, then, Mr. Chairman, there will be no more need to enter into arrangements of this sort, because they will gladly pay the extra expense themselves in order to get that fish and have it on their table from day to day, cheaper than the meat, more wholesome than the meat, and better in every particular than the meat, for which they pay such high prices and for which the price will probably be still higher in the future.

The matter of the artificial propagation of fish has been referred to here to-night. Any one who knows

MR. J. A. PAULHUS, MONTREAL,
Director for Quebec and Chairman of Editorial and Publicity Committee.

anything about the artificial propagation of fish, knows that the cultivation of salmon and the propagation of white fish has got far beyond the experimental stage. Every fisherman on the Atlantic knows that the reason of the increase in salmon is due to the hatcheries. There can be no question about it. Taking the white fish hatcheries up in Mr. Bradbury's constituency, we have a hatchery there to-day that has seventy million eggs in it, practically all of which have been hatched out and put into the lakes; and we hope to continue to do this from year to year, and we believe, from the experience we have had in the Georgian Bay and at other points in the Great Lakes of Ontario, we believe the result of these hatcheries has been, immeasurably almost, to increase the catch of white fish in the Great Lakes. White fish had almost disappeared from some of those lakes when the policy of these artificial hatcheries was introduced. Now they are increasing year by year in tremendous quantities, and it is due to artificial propagation.

The same thing is being done with salmon in the constituency which I represent. Although the great bulk of the voters are in the City of St. John, I yet have also certain country parishes in the County of St. John. There is one fishing district where all the people practically are salmon fishers, and the salmon drift from the shore of St. John County almost across the Nova Scotia coast, and nets are used that are eight and nine hundred fathoms in length. There was a time, not so very many years ago, when every now and then there would be an off season, when comparatively few salmon would be caught. Now there is no such thing as a poor season for catching salmon. I have gone down among those people there, who are my friends. I have talked to those fishermen, and every man of them believes that the reason that to-day, year in and year out, they have such a splendid catch of salmon there in the bay is due to artificial propagation of those fish in the hatcheries that we have on the River St. John. The salmon come up along the river for spawning, coming through the harbor and up the St. John River. There are about thirty tributaries of that river in which salmon used to be caught, but none are caught now, nor for the last twenty-five or thirty years. The district around Fredericton is the only spawning ground left for the propagation of salmon, among the tributaries of the St. John, because on the other tributaries saw mills have been built and dams constructed, and the salmon go to other rivers. But now all along the river they are catching salmon, even in places where it was not caught twenty-five or thirty years ago. The question whether artificial propagation of salmon is successful or not has passed the experimental stage long ago, and there is no doubt about it.

There is a question about the artificial propagation of lobsters, and I freely admit it. I think that the Department went ahead too quickly, so far as the artificial propagation of lobsters was concerned, because we did not have scientifically tried men who were capable of taking hold and developing that industry. We are trying to overcome that difficulty. The hatching of lobsters is a success, but are we placing them in the water in the right way? That is the question. Experiments along that line are now being made by the Biological Board, which is composed of men of high scientific knowledge and skill. There is a lobster pond near Digby, in Mr. Jamieson's constituency, where that work is progressing. We have biological stations at St. Andrews and other points, and this work is going on from year to year, and while there is a doubt yet as to whether the lobster hatchery has produced results that are commensurate with the expenditure, yet the fact remains that the lobster industry from St. John westward, through St. John County and through Charlotte County, the lobster product is increasing, and increasing, and increasing very appreciably year by year. And it is also a fact that last year, along the Northumberland Straits, and along the County of Kent and those counties, more and larger lobsters are caught than they have had for many years, and this is leading certain people to believe that the work of the lobster hatchery is beginning to have an effect. Wheth-

er it is having an effect or not yet, I believe that with a little more scientific application to the work being carried on, the result will be that it will put the lobster industry in a position so that it will be larger. It is a great industry and in the Maritime Provinces over 10,000 men make a living from the lobster industry; that is, so many men have bought their traps, and boats, and other appliances; so that when the season is closed it almost takes away from those men their means of livelihood, and so the Department has to go on with care and consider the best interests of all concerned. I can see no reason why, with the application of proper scientific methods, the artificial propagation of the lobster cannot be as great a success as the artificial propagation of salmon and white fish and pickerel and salmon trout has proved to be, all through this country.

Reference has been made to the oyster industry, and I know of no oyster in the world like the oyster that comes from the Maritime Provinces and from Prince Edward Island—from Malpeque, Shediac and Richibucto, Buctouche, and other places. That oyster industry was almost reaching the vanishing point, but what do we find taking place to-day? One of the troubles was the conflict of authority with regard to the oyster beds, between the Dominion and the Provinces, and three years ago I got legislation passed which gave me the authority to put an end to that divided authority and to hand to the provinces the right to lease those oyster bottoms. And what is the result? That to-day a tremendous industry is being carried on. In Prince Edward Island barren bottoms are being leased everywhere, companies are being formed and oysters are being planted on those barren bottoms. The same thing is being done in New Brunswick and in a few years you are going to see a tremendous development of the oyster industry in the Maritime Provinces, because of the fact to which I alluded, and the enterprise which has been shown by the people there. It is the same in the United States along the Delaware and other places where at one time the oyster industry was almost depleted, and where through the replenishing and restocking of the barren bottoms the industry again became a great one, and has been a source of wealth to the people engaged in it, and has been a means of supplying healthful and delicious food to a great many people throughout the country.

I have already been talking too long to-night, but there are other matters about the fisheries I would like to talk about. I would like to express my very deep regret at the fact that the treaty that was entered into some years ago between Canada and the United States for the purpose of making uniform fishery laws for those waters which are contiguous to the international boundary has unfortunately failed of achievement. That is no fault of Canada's. When that treaty was entered into—and it was necessary to have a treaty, for this reason: In the United States the fisheries are a matter of State control. Each State controls its own fisheries. In Canada the regulations for the fisheries are made, fortunately, by the central government, and, going along the lakes in Ontario and along the rivers that connect them, you have the fact in many cases that the laws governing the fisheries on one side of the international boundary are different from the laws that govern them on the other side of the internatoinal boundary. Not only are they different, but often they are very many times different—if you will excuse such an expression as that—because you have one State where the laws differ from those of the adjoining State, and these again differ from the laws of the State that adjoins that. Taking from New York, all along the Lakes up to Michigan and further on up the Lakes, you find different laws governing the fisheries in almost every State of the Union, and the result in many cases is this, that on the Canadian side of the line, where we are attempting to enforce our fishing laws, there are seasons of the year when the Canadian fisherman would look out across the lake, and, though, he was unable to go fishing because of our laws for the protection of fish, he would see his neighbor cross the lake from the American shore, casting out and fishing right up to the international boundary, and catching in many cases the fish being protected in a large measure by the fishery

MR. H. B. SHORT, DIGBY,
Director for Nova Scotia.

laws enacted in Canada and enforced on the Canadian side of the line. Now, that was a state of affairs that Canadian fishermen could not be expected to regard with complacency or contentment. On the other hand the people in the United States found that their fisheries were being depleted, and so, at the time when Mr. Taft, I think, was President, a treaty was entered into between the United States and Canada, under which it was provided that Canada would name a fishery expert and the United States would name one; that they would consider the whole question, and that they would frame regulations for the government of the fisheries in all the waters that are adjacent to the international boundary, including those of the United States as well as in Canada, and that when those regulations

were agreed to and promulgated by those two commissioners, then the parliament of each country would pass such legislation as was necessary to carry those regulations into effect. Professor Prince, who is here to-night, was appointed as Canadian Commissioner; Professor Starr-Jordan was appointed as a Commissioner on behalf of the United States. Those gentlemen took every care and great pains, made their necessary investigation, and after several years of arduous and thorough scientific work they named the regulations which they agreed to, and the Parliament of Canada, to its credit, without one dissenting voice, without discussing the merits of those, as to whether they bore harshly on Canadian fishermen or not, the Parliament of Canada passed the regulations to make those effective. That, I think I am correct in stating,

MR. J. BOWMAN, PORT ARTHUR,
Director for Ontario.

was nearly five years ago, and up to the present hour the Congress of the United States has failed to pass them, simply because, when the matter was taken up and when the President sent his message down to Congress, asking them to pass the law necessary to enforce those regulations, they listened to different interests that came from the State of Michigan, from Wisconsin and from other places along the boundary, who felt their interests might be imperiled if those regulations were passed; and so a few months ago we had to announce to the Government of the United States that we resumed our liberty of action—as a self-respecting Government, or Parliament, we could do nothing else—that we resumed our liberty of action and withdrew from the arrangement that had been entered into. It is a deplorable fact, I think, but we are in no way to blame for it. I believe the best gentlemen of the United States were very willing, were in favor of the United States passing the legislation that was necessary to put those regulations into effect. In some directions, no doubt, it would have harmed certain interests; in certain directions it would bear harshly on certain interests in Canada; but the result would have been that we would have had consistent protection all along those waters contiguous to the international boundary, and the result would have made for the preservation of fish lift and conservation of the fishing industry of this country.

There are many subjects—it is marvellous how many subjects there are—in connection with this whole fishery question, and I know that this Association, Mr. President, will find lots of opportunity of discussing matters not only of interest especially to you, as men interested in the fishery business of Canada, but of importance to Canada as a whole. I desire to say that the Department of Fisheries will welcome such discussion on your part. We will welcome any suggestions that you have to make. We will meet you on all occasions in a friendly spirit, and we believe the interests of the fisheries of Canada will be forwarded, and forwarded in very great measure, by the formation of the society which has been formed to-day and over which you, Sir, have the honor of being the first to preside. I wish you all good luck. I wish you all prosperity. I congratulate you once more on your patriotic move, and I believe it is in the interests of the conservation of the fisheries of this country. (Loud applause.)

The PRESIDENT: Honorable Minister, on behalf of the Association, it is my pleasure to thank you, not only for your presence here to-night, but for the admirable address which you have given us, and the support which you have promised to our Association. On our part, we also will promise that it shall be our aim and our wish at all times to work with your Department and to work in a manner which will mean only to further the best interests of the Canadian fishing industry as a whole.

We appreciate—we who are connected with the fishing industry, appreciate very much the work done by the Marine and Fisheries Department, especially in the matter of transportation; but there are other lines along which the Department has done some good work, and among those might be mentioned—and I could not help thinking of it to-night when Mr. Wilson quoted from the little booklet which was issued by the city of Boston, or the fish interests of the city of Boston; that brought to my mind—I am sorry I have not a copy here—a very handsome booklet which was issued by the Department of Marine and Fisheries this past summer, and, Mr. Minister, it gives me pleasure to say, without any fear of contradiction, that that pamphlet did credit to the Department. I think, if I remember rightly, the booklet was entitled "Fish and How to Cook It." It was very well gotten up, and would bear inspection, as well as criticism, even from such a well-versed man as Mr. Wilson, and that is saying a good deal.

Allow me again to thank you for the encouragement you have given our Association, for the very kind and undeserved remarks to myself, and to assure you that the members of our new Association will only be too happy to work with the Department and to work at all times, as we are sure your Department is anxious to work, for the best interests of the fishing industry.

Mr. J. O. BELLEISLE, Inspector-General of Fisheries of the Province of Quebec, then followed with a few words, expressing his approval of the Association and the value of its objects with regard to the development of the Canadian Fisheries.

Mr. J. A. PAULHUS (Montreal) followed by reading a paper outlining the aims and objects of the Canadian Fisheries Association.

Mr. President, Mr. Hazen and gentlemen,—I will outline the object of this Association as briefly and as clearly as I am capable. Our constitution might be divided into three parts, namely (1) the production of fish, (2) its distribution, and (3) the consumption of fish.

I may state that the production of our fisheries is one of this country's best assets. With this fact in view, it will be our earnest endeavor to foster the interests of fishermen—both owners and producers generally, whose plants or curing establishments are located on the sea shores, or shores of inland waters and lakes. We shall teach them that the age of routine and indifference in the way of putting up their products has passed, that a new era of modern ideas has arisen, which will do away with obsolete methods and lead the way to general improvements.

We shall insist upon improved equipments, upon uniform laws and restrictions, upon a standard which should be maintained to its highest efficiency, and, if possible, improved upon, from time to time, as conditions and circumstances may deem necessary. This will avoid lack of precaution, and do away with an inferior class of goods put up any way or in any style, which practice at present is acting like a boomerang on the producer, and depreciating the value of our fish industry at large. We shall make it a duty to teach the fisherman when, and how, and in what manner, the operation of fishing should be done; the producer and packer—the best way and the best methods, in order that the consumer should find no fault whatever with the quality and wholesomeness of the article produced; the merchant—no fault whatever with the style and attractiveness of the ware to be offered his customers. Apart from these considerations, it will be the aim of the Association to see that our sources of supply should not be inconsistently depleted. This will apply specially to fish that comes near the sea shores during the time of reproduction, and to the fish in general in our lakes and rivers. Such measures and regulations should be rigidly enforced, and if depletion occurs in spite of our efforts to prevent it, we would propose and see to the replenishment by artificial means, or, in other words, we should have recourse to a system of pisciculture in order to maintain our sources of production adequate to the demand.

It is to be noted, however, that a system of pisciculture will be more beneficial and more appropriate for the reproduction of the fish in our lakes and rivers. Very few species in the sea need protection. To illustrate my point, I might say, that statistics prove that what we call "ground" fish or fish caught at a certain depth in the sea, has not yet shown any appreciable depletion. For instance, in the North Sea, fishing has been going on systematically for over one thousand years, and the yield is still maintained.

In this country, when Sebastian Cabot came to Newfoundland, four hundred years ago, the Basques were then fishing on the famed banks; ever since, codfish has been caught in quantities, and no sign of depletion is evidenced yet. So we see from this that here there is no immediate cause for alarm or anxiety as to the future, but we shall turn our efforts more particularly to our lakes and rivers, and help Nature in instances where Nature requires our assistance. As regards fish which is under the surveillance of the sportsman, we may well leave this matter to the care and activities of the different Fish and Game Protective Associations of the country. Still, we could be of some help to them and should co-operate with them in all matters relating to the fish interests.

A word might be said about new sources of production. We have "virgin soil" in our fisheries—waters that have never been touched by the hook or net of the fisherman. Not very long ago, a report was published from an official source stating that the Hudson Bay and all the rivers which flow into this basin, are teeming with all kinds of valuable fish species.

We have also an innumerable chain of lakes in the far north of our land, which no doubt contain vast reserves of edible fish. This dormant wealth is too far off to be exploited with profit at present, but our Association should not lose sight of these resources, and be ready when the proper time comes to take advantage of them.

I am coming now to the second point, which is the **Distribution of Fish.** No animal food is as delicate as fish food, or, I should say, that the flavor of fish is so delicate that a few hours of improper care is enough to impair its flavor and delicacy. For this reason the question of transportation is essential. When I say transportation, I do not mean only the railroad or steamer service from one point to another, but I also mean transportation between the fishermen's base of operation and the shore. Often, without any ice, without any protection of any kind, fish is left exposed for hours to the sun or to a high temperature at the bottoms of fishing boats, before it receives proper icing or refrigerating process, or any kind of preparation whatsoever in view of marketing. Under these conditions, only an inferior class of product can be expected. This should be remedied by enforcing strict rules by which every fisherman should be compelled to have supplies of ice, utensils, and proper conveyances, in order to deliver fish to his base in the best possible condition. Rapid transit from initial points to terminal is also of the most vital importance in the handling of goods of such a perishable nature as fresh fish, particularly.

For this reason our Association should leave no stone unturned until the best service has been given to the fish interests. At both initial and terminal points proper accommodation should be provided for, such as ice and refrigerator plants when necessary, and at both points "quickhandling and deliveries" should be the slogan. The question of rates, tolls, etc., exacted by the transportation companies should also be uniform, and clearly tabulated, so as to be simple of comprehension and easy of interpretation. At present, these rates are so complex, so varied, that a dozen Philadelphian lawyers could not be expected to extricate themselves without pain, from their conflicting contradictions. Our government has done much in the past few years towards improving transportation arrangements for the benefit of the fish interests, and it is to be hoped that its solicitude in this good cause will not fail our Association, but will continue its present endeavors to ameliorate fish distribution.

In England, fish trains have priority over all the traffic of the different railway companies. We might

benefit by the experience of our friends across the ocean. We have learned many a good lesson from them in the past—we shall probably learn more in the future. The fact is, they understood long ago the necessity of quick transportation of the sea products to the markets, as essential to the success of their fisheries, and like practical business men, they set to work, and have to-day one of the best methods of fish distribution the world over.

I have now to deal with the last point, that is, the **Consumption of Fish.** Not very long ago the captain of one of our principal industries, reviewing the operations of his company for their fiscal year (which had not been too prosperous) said, as an incentive to raise hope in the hearts of his co-directors:—"We have the raw material, we have the plant, we have the workmen, give us the customers."

In the fish business we have all that, and even more—we have the customer. Only this customer is apathetic, uninterested, and—must I say the word—ignorant. So we have decided we shall start a campaign of education. We shall teach this customer all the advantages, all the comforts he will find in the fish as a food. I recollect years ago in a certain locality of the Province of Quebec (where I was living at the time) suggestion came through the press that farmers should resort to the industry of cheese making in preference to following the old way of cultivating their farms; it would pay them better it was intimated. The government sent representatives explaining the benefits that would result from the change. At first, as was expected, there was reluctance to adopt the proposed system. However, after much persuasion, after much educational reading on the matter, the change came suddenly. It came so suddenly that the people who at first objected to the introduction of cheese making were ashamed of their stubbornness and stupidity. Cheese-making is now one of the basic industries of the province.

Last autumn, the government started an educational campaign on the value of the Canadian apple as a food product. It has proved a tremendous success. If the government will help our Association in the same measure as it has assisted the cheese and the Canadian apple industries, the most phenomenal success is in store for the fish interests of this country.

I may be allowed to refute some objections to fish as food. The principal one is that fish is not so nutritious as meat. At a meeting of the Fish and Game Protective Association of the Province of Quebec, held at Montreal a few years ago, such a distinguished member as the late Lord Strathcona, speaking of his personal experience, related the following:—

One year, at certain posts of the Hudson Bay Company, the men had to feed for months on fish exclusively, when at some other posts supplies of meat alone had been available. According to his statement, the men who had been fed on fish only showed more power of endurance, less fatigue, and behaved better under physical strain than the men fed on meat food alone.

From such a statement the conclusion must be that the objection to fish not being as nutritious as meat, is not apparently correct. We have even the men of science who testify for us in this instance. What makes flesh meat so nutritious? It is a substance therein called protein. It has been discovered and recorded by the scientist that this substance—protein—is in larger quantities in most of the fish varieties than in meat.

From this it would seem that the most plausible argument against the use of fish in preference to meat is, that it is all a matter of taste and habit. Taste, at its best, is only acquired. Education will change taste, and combat effectively routine or habit. Another fallacy that we shall dispel from public opinion is that fish food is not so economical as it is advertised and preached. I will grant that certain species of fish at certain periods of the year are a costly luxury, but in this case, as in many others, it is not right to draw conclusions from particular to general.

For instance, if you provide fresh Gaspe salmon in the first days of the month of May it will cost you four, and even five, times as much as if you buy the same fish a month later, or in the middle of June, when the run of the fish in our rivers is at its highest.

If you buy strawberries in the month of January you will have to pay proportionately as much as for the salmon in May. Fish, according to their instinct and particular habits, migrate from the deep sea to the shores and into the rivers, and it is when accomplishing this call of nature that they are caught and marketed. So in a general way there are seasons for fresh fish, as there are times in the year when certain other products are abundant, and consequently available for food purposes at a minimum cost. In the case of prepared or cured fish at any time of the year, their cost is on an average fully 20 per cent lower than meats, butter, cheese, eggs, etc.

There is another and very important consideration which comes under the clause of education in our constitution, and which is of material importance to the consumer. Has any one present at this meeting ever thought of the possibility of a meat famine in this country? For my part, I am inclined to think that we are not far from such a calamity (if I may call it so, under the circumstance). As an authority on this matter, I have the statement of one of the most important meat packers of Chicago—Mr. Armour. In an interview given lately to a reporter of a financial paper, he declared that for the past ten years the decrease per head of cattle raised in his country had been enormous, and, as a consequence, the price of meat has been so much on the increase that he advised that some means should be taken to stop this depletion, otherwise a meat famine would be the result before long.

In our own country, the production of meat has followed the same course. There was a time when the Port of Montreal was busy, as long as it was open, from year to year, loading live stock for Europe. Herds of cattle patrolling the streets was one of the picturesue sights of our metropolis. This is all past history. We cannot export any more, as we produce hardly enough for our own requirements.

When the present war shall have stopped spreading devastation and ruin upon its trail, when peace will be restored again all over the world, and victory shall hail the flags of the Allies, immigration will pour again on our soil. Our fertile land, occupied at present as pasture, will be taken and tilled, and farming will close the epoch of ranching. Will not this narrow to the extreme the possibilities of meat raising? When this famine will be knocking at our doors, we shall avert it by our constant work and effort, as Joseph of Egypt by his dream, prevented a wheat famine in his country.

THE PRESIDENT: I wish to express in your name the thanks of the Association to Mr. Paulhaus for his very able and well prepared paper, and I would re-

quest the Secretary to obtain a copy of it, and that it be kept on record in our files, and if possible, have it spread on the records of the Canadian Fisheries Association.

We come now to the toast of "Our Guests," and gentlemen, this evening at our inaugural dinner we are signally honored by the presence not only of the Honorable the Minister of Marine and Fisheries, but we also have Mr. Jamieson and Mr. Bradbury, as well as some very distinguished guests connected closely with the question of transportation, about which we have heard so much to-night. And I am going to ask Mr. Brittain to propose the toast of "Our Guests," coupling with it the names of Mr. Jamieson, Mr. Bradbury, Mr. Walsh, Mr. Vickers and Mr. Hayes.

In proposing the toast of "Our Guests," MR. BRITTAIN said:—

Mr. Chairman and gentlemen,—In looking over the list of guests whom we have here to-night, I am very much impressed with the fact that there are representatives from the Atlantic Ocean, through to Selkirk, and when we get through that far, the transportation companies have them. Several gentlemen during the evening, particularly Mr. Paulhus and Mr. Wilson, have mentioned the conservation of our fisheries. I am quite in accord with all that they have said in regard to the lobster hatcheries and the oyster industry, but what I feel about the fishing industry is that we want largely, instead of conserving the fisheries of Canada, is to develop them. By developing the fisheries I mean getting more markets in this country here. I am quite safe in saying that in our Atlantic and perhaps in our Pacific fisheries—I am not so sure in saying our Great Lakes fisheries—at the present time we have in our fisheries more fish than we really need. I am quite safe in saying that in the Atlantic, on the Atlantic Coast our fishermen to-day are throwing away thirty-five per cent of the fish (hear, hear) which they catch on the vessels, through lack of markets. I am quite safe in saying that on the Pacific Coast there are different varieties of fish which, through lack of markets, the fishermen are to-day unable to place before the public. I am quite safe in saying that in the Great Lakes we have fisheries to-day that are capable of further markets. My object and my sole endeavors in the fisheries are to increase the consumption of fish as a food. I fully appreciate, and I am almost enthusiastic over, what the Government have done up to the present time in regard to the development and to the assistance of the fisheries in advertising the value of fish as a food. I believe that we can go further. And take the fishermen, whom some people say I am not particularly interested in. I figure that the fisherman is to-day part and parcel of the success of the company with which I am associated. At times it may not appear that we are sympathetic with them, but we figure that the employees, or those who are associated with our business, are necessary to the success of our business. Whether he is from the Atlantic or whether he is from the Pacific, or whether he is from the Great Lakes, the fisherman is part and parcel of our business, and, I am quite safe in saying, the success of every gentleman present here this evening.

Now, to go further along the line: When the fishermen take the fish, it is the duty of those who are interested in them to find the markets. We are endeavoring to find the markets. The Government have, I am glad to say, assisted the fish merchants in a way with which, I believe, everybody is satisfied. I do not think there is a dissenting voice here to-night when I say that the Government have satisfied us as far as they have gone. (Hear, hear.) There are further developments and further assistance which they can give us, and I am quite sure this Association—when we get going and when we have our views all of one accord and are placing them before the Government of Canada—that we shall have a better hearing and that we shall have further assistance.

There are other things which can be added to that list. What I would like to see the Government of Canada—I may be rather pessimistic, but I would like to se them spend a million dollars in the development of the fisheries for the Canadian people. We have through the Government—I will say it, I must admit it—through the assistance of Canada, we have eliminated fish from the United States ports and we are now bringing fish from Canada to the Canadian in the inland centres, and I am safe in saying, we can develop it largely. But we must have further assistance, and that is from the transportation companies. (Hear, hear.) We have with us here to-night Mr. Jamieson from Digby, who represents the Atlantic fisheries. We have with us here Mr. Bradbury, who, I understand, represents Selkirk and the Great Lakes fisheries. We also have with us here the transportation companies. We have a combination, gentlemen, of interests hard to beat. Now, we want the co-operation of all these gentlemen to help us to develop our fisheries.

I am going to take a few moments—I am not going to take up much of your time, because I want to hear these gentlemen we have with us here—I am going just to refer to the express companies. I will be personal. I see we have two gentlemen here that are going to reply to this toast and who represent the express companies. And, gentlemen, I must say they have been doing a lot for us, they have been helping us, but they have got to get right down to hard tack and help us a little more. There is no doubt about it, that when we come to them in a broad-minded way and put our stories up to them, they endeavor to do what they can. But they can do more, they can do a great deal more. What we want, as far as the express companies are concerned—I won't refer to rates, because that is, perhaps, a complex problem, which at this time it is not good form to refer to; but I will say, in regard to express cars, that if from the eastern part of Canada we could get even cool cars, cars which will bring us fish to the points of destination, at the present rates, we are going to make great development. We are bringing fish to-day in baggage cars, with heat in them. It is not the fault of the express companies, but it is the fault of the railway companies, and I know that the express companies—we have them here to-night—I know the express companies will help us, and, therefore, I am appealing to them. I have never yet been accused of asking for lower rates. I know there are others here looking for them, and I do not want to bring that question up to-night, but I want to ask the express companies to co-operate with us here. Let us go to them. We will put our story up to them as straight as we know how. We will give them the comparative distances on which they are carrying one line from one part of Canada to another. We will refer it to them. We will put it on a mileage basis. We will meet them on their own mileage. We will tell them exactly what they want to know, and then we will ask them to come along and give us a show and watch the business grow. They tell us at times business is not sufficient. We can give them more business. We can give them plenty of business. We can run an ex-

press train, gentlemen if we get the co-operation of the express companies. I do not want to imply for one moment that the express companies have not been helping us, because I know that they have. I know their heart is in the right place, and I know they are going to help us.

I would therefore couple with this toast the names of Mr. Clarence Jamieson, M.P., Mr. George H. Bradbury, M.P. for Selkirk, Mr. Walsh and Mr. Vickers—and Mr. C. A. Hayes (hear, hear), Traffic Manager of the Intercolonial Railway.

Replying to the toast of "Our Guests," proposed by Mr. Brittain, MR. JAMESON, member of Parliament for Digby, N.S., said:

Mr. President, Mr. Minister and Gentlemen: I trust that the hosts of the evening will feel, without my giving expression to formal thanks, that I am deeply grateful for the honor which has been afforded me of meeting, under such agreeable circumstances, with the charter members of the Candian Fisheries Association. And I can assure you that it has been to me a most pleasant evening, and that I was very much pleased, indeed, to-day, upon attending the session which preceded this banquet, to find that matters were expedited so admirably in the formation of this splendid organization, with such a gentleman as Mr. Wilson in the chair, using that ability for which he is well known, and with so much business acumen and such breadth of view displayed by those upon the floor, it is not of course surprising that the business of the occasion was despatched with every degree of promptitude. And I wish to congratulate you, Mr. Chairman, upon your election as President, as the first President of this Association. I understand from you that the position was not one of your own seeking; that, indeed, you were not present upon the occasion of your election. I only wish that I could win my elections as easily. (Laughter.) But the remarks with which you opened this meeting this evening, when you said this position was one which had fallen upon your shoulders unsolicited, reminds me of an experience which I had in my own constituency on one occasion when I was asked to attend a wedding banquet—not my own, fortunately,— and the bridegroom was called upon to make a speech. He displayed that diffidence which bridegrooms are noted for, and as he rose bashfully from his seat, his bride sitting upon his left, he placed his hand upon her shoulder, looking up for inspiration for a moment, he said: "Friends, I don't know exactly what to say. This thing was forced on me." (Laughter.) I need not tell you, he did not get much further with his remarks.

I have enjoyed, as you have enjoyed, the splendid speech of the Minister of Marine and Fisheries this evening. He is a most charming man, and the better you come to know him the more you will appreciate it. He also has a habit, a very great aptitude, for saying most charming and delightful things, but I would warn some of you, perhaps, who may not have the same experience with him as I have had, that you should not take the will for the deed, but always be careful to get the deed. (Laughter.) Of course, there are many requests which are made of the Minister of Marine and Fisheries, as of other Ministers, which it is almost impossible for him to meet. In that regard I have to sympathize with him too. I noticed to-night when he alluded to the question of what may be termed larger patronage of his Department, when he said he had a demand to extend the season for the fishing of smelts, I think, in his own province, with what courage and fortitude he faced the position. The situation which is raised in that regard is one which appeals to every man who sits representing a constituency in any legislative body, and it reminds me of the saying of a young man whose father had departed this life, whose estate he was called upon to wind up for those who had inherited it. The young man, in an outburst one evening, exclaimed to a friend, "Sometimes I have so much trouble with the estate that I almost wish father hadn't died." (Laughter.) I think that the Minister sometimes is almost sorry that he is Minister of Marine and Fisheries.

We have here in this meeting, I think, an illustration of the progress which is being accomplished. I think it was nine years ago, Mr. Wilson, myself and one or two others came here from the Maritime Provinces and asked the late Government if they would not organize a Fishery Advisory Board. Of course, we did not expect too much at the first application. We knew it was largely a matter of education; we knew it was largely a matter of hammering away. And it was not until some five or six years later that that was brought about, and we have to-day, I think, very much to the credit of the Minister of Marine, and very much to the benefit and advantage of the fisheries of Canada, an Advisory Board which, I believe, is well officered and manned. I only mention this fact to show you that those who have been in the field for some considerable time and who have been doing what we could in our small way to advance the interests of the fisheries, have not got all that we wanted immediately, and my friends here who were speaking of freight rates and express rates and better refrigerator cars and all that sort of thing, if they take a leaf out of the book which Mr. Wilson and I wrote some years ago when we asked for a Fishery Advisory Board, they will pound away remorselessly and they will find eventually that they will effect those things which they set out to effect, provided their demands are reasonable, and provided they are within the range of possibility. (Hear, hear.)

Now, I have every sympathy with the producers of fish. I have a great deal of sympathy with the carriers, the common carriers of this country. I know both of them are up against great rate problems, problems which is going to take time, patience and some give-and-take upon both sides to meet, to overcome, and to place upon a satisfactory basis; but I believe, seeing the spirit of the men who have organized this Association, that when they are called upon to deal with this question they will deal with it, not in a narrow spirit, but they will deal with it upon good, broad, Canadian lines, asking only those things which are right and granting those things which are fair and reasonable. (Hear, hear.) I believe if a spirit of that character is adopted; the progress which has hitherto perhaps been somewhat slow, in regard to the development of the fisheries, in regard to the development of the transportation of our fish, will be advanced and will be placed upon a satisfactory basis.

The Minister of Marine and Fisheries, I may say—and if he were absent I would say a great deal more and a great deal pleasanter things than I can at present, because he is a very modest man and I do not wish to bring the blush to his cheek—the Minister of Marine and Fisheries is a tremendous man for work. He fairly delights in work; he eats it up; it is part of his daily food, I think, and nourishment. (A voice: Try fish, too.) And some years ago a Fisheries Committee was organized; I think it was in the year 1908, the first year that I came up to the House—a committee

which under the late Government did, as possibly under those circumstances it was obliged to do, a good deal of work—a good deal of useful work, and a committee which I believe was of benefit to the fisheries and of no inconsiderable benefit to the Department itself. Since the present Minister of Marine and Fisheries has taken office he is, as I have pointed out, such a tremendous man for work that he has almost rendered unnecessary and useless this committee. I think he has very largely usurped the functions of the committee, or, possibly, if he was going to have much time upon his hands, he might, recalling the old adage that "Satan finds some mischief still for idle hands to do," have fallen into the practice of taking over the work of this committee himself. But a question has been raised to-night with regard to transportation and with regard to rates, which I think might not improperly be dealt with by this committee. It is possible that an enquiry carried on upon fair and reasonable lines, an enquiry which would involve the giving of evidence by those who actually could give evidence of a satisfactory and enlightening character, might be very advisable and would be fraught with a good deal of benefit to the fisheries and to the transportation companies as well; for of course it is desirable that no misunderstanding should arise between the producers of fish and the carriers. I make that suggestion to the Minister now in view of the fact that he has this new Association, which, I understand, at all times will be prepared to give him lots of advice, lots of suggestions, and plenty of problems to deal with. If when he is dealing with those problems he will also call to his assistance this committee which from year to year is struck, and of which, I think, during the past two or three years we have not made as much as we might possibly have done.

Now, Mr. President, I have but recently experienced the delights of five months in the hospital and as a result I am pretty well under the doctor's care yet, and he has imposed upon me certain restrictions.

I will, with your permission, not impose myself further upon your time on this occasion. But let me say in closing, that I hope, and I expect, that this Fisheries Association will be of the greatest benefit and assistance to the Minister of Marine and Fisheries from time to time. I hope, and believe, that it will do much to promote the welfare of the Canadian fisheries in a broader and wider sense, and I trust that the association will not become discouraged if at the outset it does not meet with the success which it hopes for, and if it does not attain immediately those things which it has set out to accomplish, but that it will keep on hammering away, plugging away, as it is only in such manner that any satisfactory result can be attained with regard to matters of such great importance. And I wish you all success. I thank you very much for asking me to be present upon this occasion, and I can assure you that in any way which it is possible for me, I shall be only too delighted to serve you upon all occasions. (Applause.)

THE PRESIDENT: It is hardly necessary to assure our friend, Mr. Jamieson, that we are not discouraged, and that we will take his advice with regard to importuning—if I may use that word—the Honorable Minister, so that he may find it would be easier to get rid of us by granting our requests than to suffer us to continue bothering him looking for what we want. Perhaps, by that persistence we may hope to accomplish something, but at least we feel that we have started out under the very best auspices, and I can assure you, gentlemen, that we have reason to feel that we have the ear of the Minister, and I believe that ,in parliamentary expression, means a great deal. (Hear, hear.) We feel that we can count on his hearty support, and on our part we will promise him we will not at any time attempt to ask him for anything which is not fair, which is not for the general good, and which does not make for the best interests of the Candian fishing industry. (Hear, hear.)

I will call on Mr. Bradbury, the member for Selkirk, who in a special manner represents our inland lake fisheries. (Applause.)

Mr. BRADBURY, M.P.: Mr. President, Mr. Hazen and gentlemen,—I can assure you I am pleased to be here with you to-night. I want to congratulate you upon the movement which you have made in forming this Fishery Association. I have often wondered, in days gone by, why an association of this kind had not been formed in Canada long ago. However, it is never too late to mend, and I am glad you have made a start. After listening, however, to the eloquent speech delivered by our Minister, I hardly know what to say regarding the fisheries. As you know, I know very little except what I read, about the Atlantic fisheries and the Pacific fisheries, but I do know something about the inland fisheries. These, I want to say, are second perhaps to no fisheries in Canada. We have in Manitoba, in the great West, some of the greatest inland fisheries in the world, I think; and we have in Saskatchewan, my young friend, Mr. H. A. Green, Saskatoon, beside me, says, some excellent fisheries, and I am led to believe that Ottawa is going to test the quality of the Saskatchewan fish and is going to feed some to our soldiers. I am sure it will do them all good.

Now, I was struck very much with some of the remarks of the Minister. The Minister is always practical on this question. I do not think there has ever been a man occupying that position that is better informed as regards the fisheries of Canada than the present Minister of Fisheries. (Applause.) The question of education, of educating our people to use fish, that is one of the very greatest importance, I think, to an association of this kind.

There is a great future in store for this Association. I believe that you will do very much to increase the popularity of fish all over this country.

Now, speaking of the propagation of fish, I want to confirm what the Minister has said so well about what is possible along this line. The Minister usually is pretty modest, and he was pretty modest to-night when he stated that it was a hatchery of some seventy million eggs. I think we have three hatcheries, with really three times that amount of eggs to-day: so it gives you some idea of what is taking place in the West regarding the propagation of these fish.

Now, if you want to find a market—One of the gentlemen who moved this toast so eloquently said, "What we want to do is to find a market right here for our fish." (Hear, hear.) Well, I want to show to that gentleman that, in my opinion, the way to find a market is to make the product appeal to the masses of the people. I understand, Mr. Chairman, that it is a matter of education, the eating of fish—cultivating fish taste. I was in London a few years ago when a great educational movement was on there. All along the Strand and along the other great thoroughfares, wherever you would go you would find fish stalls where they were cooking it and serving it out to the peo-

ple at a very cheap price—teaching the people there how to use fish—that is a course of fish. They had not realized the value of it.

A MEMBER: The Government should do it.

Mr. BRADBURY: The Government should do it? Well, I don't mind saying this, as far as I am personally concerned: I am willing to ask the Government to assist here. (Hear, hear, and applause.) But when I ask the Government to assist, I expect the fish companies to respond (hear, hear) and to support the Government by giving the fish to the people at a cost that they can afford to buy them.

Now, Mr. Chairman, I am glad to be with you. I am not going to take up any more of your time, but I appeal to you, if you wish to make a success of the great fisheries—one of the greatest assets, Mr. President, that Canada has to-day is our fisheries — these fisheries ought to be made available to the people of Canada. We ought not to be simply producers of something to export to other countries.

I can assure you I am glad to be with you, and I hope that this Association will flourish, as I believe it will. The next time you meet, I hope to see a good many more men representing the inland fisheries at your meeting. We have some of them here to-night. We have a great many more in Manitoba. The inland fisheries are a very valuable asset to Canada. (Hear, hear.) We have, I think, perhaps the finest white fish in the world.

Mr. Bradbury was followed by remarks by the Chairman, Mr. Walsh, Mr. Vickers, of the Dominion Express Co., and Mr. Hayes, of the Intercolonial Railway.

Mr. Hazen invited members to visit Fisheries Museum, and at the request of the Minister, Prof. Prince and Mr. Found were called upon for addresses.

Mr. FOUND: Mr. Chairman, Honorable Minister and gentlemen,—I could wish for the moment that I had the tongue of an orator to express my appreciation of your most cordial reception of the Minister's suggestion that I should say a few words to you. Nothing was more unexpected to me than that I should be called upon to do so ;and I hope that it is not out of place for me to express to you, Mr. Chairman, and those present my very great appreciation of the kind words the Minister has uttered with regard to the services that I have been attempting to render, and to render, as far as they lie in my power, the industry in connection with which I am employed. I do not want to take up the time by apologizing. Any of you that know me—and I am glad to have the pleasure of knowing a number of you pretty well—know that my work is not along the line which gives me the opportunity of expressing myself in a public way; so that I am not practised—apart from being gifted—in that direction. I wish, however, to express my great satisfaction personally at such an Association as the one that has been inaugurated so auspiciously to-day having been started. It appeals to me as being a move which evidences more clearly than any words that I can utter what the hopes of the future, in so far as the fish business is concerned, are. The difficulties in this country in connection with the fisheries are obvious difficulties. We had a new country, with tremendous potentialities, with tremendous distances and sparse population: consequently long distances to carry small supplies. These all involve their own very special difficulties. Fish being more difficult to handle than most other commodities, when it is handled in the way we like to see it handled, mostly in a fresh condition, or a mildly cured condition, needs care and speed of handling facilities that few other foods do, and in a country like this, where agricultural products, where land animal meats have been available in past years so cheaply, it has been very very hard to get the people in the inland portions to begin to eat fish. The result is that the population very largely, so far as the native Canadians are concerned, have grown up that have not a fish taste; in fact they have acquired the very opposite. The time has come when that has to be broken down, and the time has come when it should be broken down, and when, it appears to me, it can be broken down more rapidly than at any time in the past. The conditions are working to that end now, and the enthusiasm of the people who are in the industry, with such assistance as the Dominion Government, through the Department, can offer, will no doubt —the results of these efforts will no doubt be obvious in a very short time. In fact, they are obvious now, and very obvious as compared with a very few years ago. It is a very hard thing for many of us to realize how speedily things are growing, if we are watching the growth day by day. If we were to go out of this country for a little while and come back in a few years, I am sure we would utter in regard to the fisheries the same remark as you hear uttered by people who, leave a city for a certain time and come back after a few years: "How wonderfully it has developed! How wonderfully it has grown!" Now, I think that is just as true of our fisheries trades at the present time. And the people engaged in the different branches of the industry are all thoroughly cognizant of the difficulties that lie in the way of the rapid development that is possible to us.

No remarks pleased me better than those that were uttered by our good friend Mr. Hayes (Intercolonial Railway), who has the honor to occupy such a responsible position as he does,—that there should be a feeling amongst us of perfect candour, for it is only by absolute candour on the part of every one that we can accomplish most speedly and most efficaciously the end that we all have in view.

I do not wish to take up more time, Mr. Chairman. I find my thoughts wandering on, so that I might keep on speaking for a much longer time. I wish to thank you very very cordially for the opportunity that has been afforded me in expressing these few remarks, and again thank you cordially for your kind reception. (Applause.)

Mr. HAZEN: Before we separate, I think we ought to drink the health of our hosts—those of us who are guests on this occasion. And in drinking that toast we wish the Canadian Fisheries Association a long career of usefulness in promoting the interests of the fisheries of Canada.

Replying to the toast, the PRESIDENT said: said:

I am afraid, gentlemen, I have to keep imposing myself on you, but I could not let the occasion pass without thanking in your name the Honorable Minister for proposing the toast to the hosts, coupling with it the Association and very good wishes for the future. We have made one great step of progress forward when we have enlisted his active support, and he has already promised that we may have the active assistance and co-operation of the officials of the Department. We hope that in a very short time we shall become a strong Association which will act in conjunction with the Department, with the officials of the Department, with the one great object of furthering the interests of the fisheries.

I thank you all, gentlemen, for having listened to me so often, and with such great patience.

Mr. BRITTAIN: Will you allow me, for one moment, to offer a vote of thanks to our Chairman, who has so ably conducted this meeting and to whom we are so greatly indebted for his services to-night. He was, in a way, handicapped in getting here, and I, for one, wish to move a vote of thanks to our Chairman for the able way in which he has conducted this meeting, and thank him for being here to-night . (Applause.)

The meeting closed with the singing of "Auld Lang Syne" and "God Save the King!"

Among those present at the Dinner and the day's proceedings were the Hon. A. K. McLean, Halifax, N. S.; Mr. H. S. Clements, M.P., Prince Rupert, B.C.; Mr. W. Shearer, Vancouver, B.C.; Mr. W. A. Found, Superintendent of Fisheries, Ottawa, Ont.; Professor E. E. Prince, Commissioner of Fisheries, Ottawa, Ont.; Mr. G. L. Harris, Asst. Superintendent of Fisheries, Ottawa, Ont.; Mr. W. Douglas, Winnipeg, Man.; Mr. Hugh. A. Green, Saskatoon, Sask.; Mr. S. Y. Wilson, Halifax, N.S.; Mr. Walter Leonard, St. John, N.B.; Mr. H. B. Short, Digby, N.S.; Mr. M. Lapointe, Ottawa, Ont.; Mr. J. Bowman, Port Arthur, Ont.; Mr. A. Handfield Whitman, Halifax, N.S.; Mr. J. A. Paulhus, Montreal, Que.; Mr. W. R. Spooner, Montreal, Que.; Mr. T. W. C. Binns, Ottawa, Ont., Mr. J. N. McIntosh, Ottawa, Ont.; Mr. E. Lapointe, Ottawa, Ont.; Mr. J. T. O'Connor, Montreal, Que.; Mr. A. H. Brittain, Montreal, Que.; Mr. W. A. Fraser, Montreal, Que.; Captain W. C. Smith, Lunenburg, N.S.; Mr. W. P. Scott, Queensport, N.S.; Captain J. A. Farquhar, Halifax, N.S.; Mr. C. H. Earle, Montreal, Que.; Mr. H. G. Connor, Montreal, Que.; Mr. J. J. Harpell, Montreal, Que.; Mr. J. Welsh, Toronto, Ont.; Mr. C. A. Hayes, Moncton, N.B.; Mr. V. G. R. Vickers, Montreal, Que.; F. Wm. Wallace, Montreal, Que.

WITH THE FISH MEN IN OTTAWA.

Mr. Hugh A. Green—the man from Saskatchewan—claims that Western white fish has every other fish down and out. He has succeeded in having it put upon the menu for the soldier boys out west, and he claims that it is great food for training fighters to lick the Germans.

Mr. J. Paulhus gained a name for himself as a literary man of no mean ability by the speech which he delivered at the Association dinner. Mr. Paulhus is a French-Canadian by birth, but speaks with equal facility in both languages, and his speech, reproduced elsewhere in this number, shows a remarkable command of the English tongue—thought and mode of expression being perfect.

The Association secured an admirable President in Mr. D. J. Byrne. Mr. Lyrne was brought up in the fish business, and knows it pretty thoroughly. He is also an optimist regarding the future of the industry, and to retain an optimistic spirit after spending a lifetime in the fish trade is the surest recommendation as to its worth and possibilities. The Association is fortunate in having, as its chief officer, a gentleman possessed of the ready wit inherited from Irish forbears, and the gift of facile and tactful speech. Many of those who listened to Mr. Byrne feel that he is entitled to be called the Chauncey Depew of the fish trade.

Mr. A. H. Brittain of the Maritime Fish Corporation thinks that the slogan of "Buy a Bale of Cotton" might be adapted to the fish trade. Buy a Box of Haddies would suit him better. Mr. Brittain has been elected Chairman of the Transportation Committee—a position which will call for all the virtues of diplomacy, patience, and tactful aggressiveness on his part. The work could not have been put into the hands of an abler man, as Mr. Brittain knows the ways of railroads and blarney of railroad men.

It has been suggested that Mr. C. H. Earle—"Charley Earle"—be appointed Official Songster to the Association. When C. H. gets in front of a piano and expands his chest the resulting effect draws the attention of everybody within hearing distance. But Mr. Earle can sing—no doubt about it—and he has been aptly named the "Caruso of the Fish Business."

We are glad to see Mr. V. G. R. Vickers, of the Dominion Express Company at the Inaugural Dinner. Mr. Vickers has a personality which simply exudes geniality and his infectious laugh and smile would create vaudeville in a funeral party. Alas! we are afraid that Mr. Vickers is too genial a man for the Express business from a fish man's point of view. When we feel like getting after the Express Company for something or other we run into Mr. Vickers and immediately forget we had a grievance.

The two Vice-Presidents of the Association hail from both coasts. Mr. W. H. Barker, Second Vice-President, is the President of the B.C. Packers' Association, Vancouver, and happened to be in California at the date of the meeting. In the person of Mr. S. Y. Wilson, of Halifax, the Association has a First Vice-President who can keep things moving. Under his energetic chairmanship, the business meeting of the Association went with a rush and no stop-overs. Mr. Wilson can be relied upon to act as Whip for the Atlantic members, and he will set the pace for our friends from the Pacific.

It is to be regretted that Mr. F. T. James, of Toronto, was unable, through illness, to attend the Ottawa Convention. Mr. James is one of the men responsible for the organization of the Association, and as one of the Ontario Directors, will undoubtedly keep the fisheries of the Lake Province well to the fore. The salt water men are inclined to ignore the Lake fisheries, but "F. T." and his fellow directors will show that there are as good fish in lakes as ever came out of the sea—in spite of the fact that there is no salt in the water.

The Canadian seal fishery had a representative in the person of Captain J. A. Farquhar, of Halifax. Captain Farquhar is the pioneer of the North Atlantic sealing in Canada and a most interesting personality—having travelled extensively both as a sailor and a tourist. Any enterprise which has an element of risk in it appeals to the Captain and the story of his adventurous life—sealing, sailoring and blockade running—would make a tale worth reading. Though over seventy years of age the instinct of excitement still runs strong in his blood and it is his intention to command one of his own vessels in the seal fishery this spring. Another Nova Scotian sailorman and fisherman in the person of Captain W. C. Smith of Lunenburg also attended the gathing in Ottawa.

An Open Letter to those Engaged in the Canadian Fishing Industry

All great movements in the direction of progress have behind them well defined motives which are responsible for their existance and in the formation of the Canadian Fisheries Association it may safely be claimed that the motive or reason is a sincerely Patriotic one. The development of our natural resources becomes at this time, for all Canadians, a duty to our own Country and a very distinct help to the Empire at large. Among the many resources of which Canadians may proudly boast, there are none more fertile, nor more capable of development than our National Fisheries, which are justly renowned. For many years those engaged in the Fishing Industry have felt the need of an organization to cope with the many problems which frequently arise in connection with our Industry in Canada. These problems are common to all, but the successful handling of the difficulties, as well as their amelioration by individual effort, cannot possibly be accomplished so well as by the concerted action of those actively engaged, through the medium of an organized association.

Our objects, as outlined in the Constitution and By-Laws are broad enough to include within our Membership the various elements which go to make up the many branches of the Canadian Fisheries, and are so framed as to appeal to all, from the Fisherman who produce, to the Distributor and the Retailer, through whose intermediary the finished product finally reaches the Consumer, with the desire to develop our Fisheries along Commercial, Scientific and modern lines. It shall be our aim to improve the methods of transportation and marketing also the protection of the interests of our Members, as well as the promotion of a co-operative spirit for the mutual benefit of all.

In addition to our large and growing export trade in fish and their products, there are also immense possibilities for the development of an increased demand in our home market. An educational policy will be an important factor of our work, the object being to educate the public regarding the value of fish as a regular article of food and an economical substitute for many expensive, but less nutritious foods, now in general use.

An appeal is made to all who are affiliated or connected in any way with the fishing trade to become Members of the Canadian Fisheries Association and by so doing render practical assistance in a work destined to be of immense benefit to our Country, which is the very truest form of patriotism.

To successfully accomplish the many projects in contemplation it is essential that the Association have the hearty support and co-operation of those engaged in the Industry, and, having this in mind I would strongly urge that you become active Members, thereby rendering valuable assistance and becoming identified with a movement which will be to the advantage and benefit of the Canadian Fishing Industry.

Yours very sincerely,

D. J. BYRNE,
President.

Fill out and mail to MR. F. WILLIAM WALLACE, *Secretary-Treasurer, Canadian Fisheries Association, Room 600, Read Building, Montreal.*

Canadian Fisheries Association

APPLICATION FOR MEMBERSHIP

I hereby apply for Membership in the Canadian Fisheries Association. and agree to conform to the Constitution and By-laws if elected. The annual fee of ten dollars is herewith enclosed.

NAME.....

Occupation.....

Address.....

.....

.....

Date.....

Wholesale Fish Prices, Montreal Markets

(Quoted by D. Hatton Company.)

Lent has brought its period of activity, which has been retarded some by unsuitable weather. However, stocks have been reduced materially of late. Green cod fish and Labrador herrings, have advanced fully 10 per cent., pickled salmon, mackerel, still plentiful on frozen lines, market is well supplied, and prices rather easy.

New duties will increase cost of bulk oysters. Prepared, smoked and canned fish are steady, and at firm prices.

Smoked Fish.

Haddies, 15 lb. boxes new	per lb.	$ .07
Haddies, 30 lb. boxes	per lb.	.07
Haddies, Fillets	per lb.	.10
Haddies, boneless, 15 and 30 lb. boxes		.08½
Yar. Bloaters, 60 in box, Selected		1.25
St. John's Bloaters, 100 in a box		1.00
Kippered Herrings—Selected		1.40
Kippered Herrings—Other brands		1.25
Smoked Herrings—large size, per box		.18
Smoked Herrings—medium, per box		.20
Smoked Boneless Herrings, 10 lb. box		1.10
Ciscoe Herrings, a basket 15 lbs		1.50
Smoked Eels		.12

Fresh Fish.

Halibut	per lb.	.11	.12
Haddock	per lb.	.05½	.06
Market Codfish	per lb.	.04½	.05
Steak Sodfish	per lb.	.06½	.07
Carp	per lb.		.12
Perch	per lb.		.10
Lobsters live	per lb.		.32
Lobsters Boiled	per lb.		.35

Frozen Fish.

Salmon—Gaspe, large	per lb.	.11½	.12
Salmon—Red, Steel Heads	per lb.	.11	.11½
Salmon—Red, Sockeyes	per lb.	.09½	.10
Salmon—Red, Cohoes or Silvers	per lb.	.08½	.09
Do. Dressed	per lb.	.09½	.10
Salmon and headless	per lb.	.10	.10½
Salmon Pale Qualla, dressed	per lb.	.07	.07½
Halibut large and medium	per lb.	.09	.09½
Mackerel, Bloater	per lb.	.07½	.08
Herrings, medium, 50 lb. per 100 count			2.50
Haddock, medium & large	per lb.	.04½	.05
Market Codfish	per lb.	.04½	.05
Steak Codfish	per lb.	.05½	.06
Pollock	per lb.	.03½	.04
Tommy Cods	per lb.		1.50
Smelts, extras 10, 20, 25	per lb.		.15
Smelts, medium to large	per lb.		.11
Smelts, small	per lb.		.06
Canadian Soles	per lb.		.07
Blue fish	per lb.	.16	.17
Striped Sea Bass, large	per lb.	.15	.16
Sea Trout	per lb.	.10	.10½
White fish, large	per lb.	.08½	.09
White fish, small Tulibees	per lb.	.06	.06½
Lake Trout, large and medium	per lb.	.08½	.09
Dore, dressed or round	per lb.	.07½	.08
Eels	per lb.		.09
Pike, round	per lb.	.05½	.06
Eels	per lb.		.10
Shad, 3 lbs. each			.08
Frogs, 10 lbs. tins			.20

Pickled Fish.

Salmon, Labrador, Tierces 300 lb.	20.00
Salmon, Labrador, Brls. 20 0lb.	14.00
Salmon, B.C., brls.	13.00
Sea Trout, brls.	12.00
Sea Trout, half brls., halves	6.50
Mackerel, N.S., Brls. 200 lb.	12.00
Mackerel, N.S., Hf. Brls. 100 lb.	6.75
Mackerel, N.S., Pails, 20 lb.	1.50
Herrings, Labrador, Brls.	6.00
Herrings, Nova Scotia, Brls.	6.00
Herrings, Nova Scotia, Half Brls.	3.25
Lake Trout, Half Brls.	6.00
Quebec Sardines, Brls.	6.00
Turbot, brls.	14.00

Salt Dried & Prepared Fish.

N. 1 Green Cod, large, per barrel	11.00
No. 1 Green Cod, medium, Brl.	10.00
No. 1 Green Cod, small, Brl.	8.50
No. 1 Green Cod, Haddock, medium, Brl.	8.00
No. 1 Green Cod, Pollock, Medium, Brl.	7.00
No. 1 Green Cod, Hake, medium, Brl.	7.00
Quebec Eels, large, per lb.	.07½
Dried Codfish, med. & small 100 lb. bundle	7.00
Dried Hake, medium & large 100 lb. bundles	6.00
Dried Pollock, medium & large 100 lb. bund.	6.00
Dressed or skinless codfish, 10 0lb. case	7.25
Boneless Codfish, 2 lb. blocks, 20 lb. boxes	.08
Boneless Codfish, strips 30 lb. boxes	.11
Shredded Codfish, 12 lb. boxes, 24 cartons, ½ lb. each, a box	1.75

Bulk Oysters, Clams, Etc.

Best Standards, imp. gallon	1.40
Solid meats, imp. gallon	1.70
Selects, best, imp. gallon	1.80
Selects, solid meats, imp. gallon	2.00
Best clams, imp. gallon	1.50
Best Scollops, imp. gallon	2.00
Best prawns, imp. gallon	2.00
Best Shrimps, imp. gallon	2.25
Oysters pails, ¼ gal. per 100	1.10
Oysters pails, ⅛ gal. per 100	.90
Oysters pails, 1-16 gal. per 100	.70
Sealed best standards, quart cans, each	.35
Sealed best selects, quart cans, each	.45

Oysters, Clams, Mussels and Shell Fish, Crustaceans, Etc.

Cape Cod shell oysters, per barrel	9.50
Malpeque shell oysters, selected C.C.I., brl.	11.00
Malpeque shell oysters, selected J.A.P., brl.	10.00
Malpeque shell oysters, ordinary, per brl.	8.00
Malpeque shell oysters, caraquets, per brl.	5.00
Clams, per barrel	7.00
Mussels, per barrel	5.00

Mr. W. Douglas, of the Guest Fish Company, Winnipeg, complains that he is always being taken for W. L. Douglas, the Boston shoe millionaire. However, as Mr. Douglas claims there are no millionaires in the fish business, he should feel flattered. It was a distinct pleasure to have Mr. Douglas at the Inaugural Meeting as the "Apostle from the West," and if all the Prairie fish men are as enthusiastic as he is, the Association will boast of some live members from the land of wheat and real estate agents.

WINTER FISHING

THE LOG OF A HARD-LUCK HADDOCKING TRIP.

By F. WILLIAM WALLACE.

This story is not written for the benefit of our fishermen readers. Fishermen know all about these things and they experience tough weather so often that it becomes commonplace; but this yarn may prove of interest to other members of the Canadian fishing industry in as much as it portrays just what our fishermen have to go through in winter fishing.

The writer is cursed with a restless spirit. A seafaring strain in the blood breaks out every now and again and the editorial office of the "Canadian Fisherman" becomes a prison at these times. The howl of a winter wind outside the building brings back memories of a tumbling schooner on a cresting sea, and one lives again in fancy the wild free life of the light-hearted Bank fishermen. The lure of open water and a brine laden breeze becomes insistent, and there is no cure but to break away from the desk and up anchor for sea.

After Christmas, the writer felt that City life and quill driving was beginning to pall. The dead of winter is not the best time to go seafaring, but when one has been before and knows the ropes, it has no terrors, so, after routing out an old sea kit, I packed my sailor's clothes bag, and boarded a train bound for the east. On January 2nd, I landed down in Yarmouth, N.S., and jumped aboard the Digby schooner "Albert J. Lutz"—an able 90-ton vessel manned by a crowd of old shipmates.

It certainly felt good to be among the boys once more: to climb into old clothes and sea boots and doss in a bunk without having to don pyjamas. And the greatest pleasure of all was to feel that one was welcome. Fishermen are plain spoken. If they don't like the cut of your jib, they'll tell you so, but if they regard you as a friend, they can't do enough for you. In some of the "Lutz's" gang were many with whom I had been shipmates on several trips and one and all were a bully good crowd.

On January 3rd it blew a gale of wind all day and we hung to our anchor in the harbor and hugged the stove. The weather, since the haddocking season commenced in the Fall, had been of the worst description, and all hands were hoping for a let-up in the continuous succession of gales with the opening of the New Year. In addition, fishing around the coast was very poor and the winter for the vessel fishing was a hard-luck story from the commencement.

SCHOONER "ALBERT J. LUTZ."

JANUARY 4th, MONDAY.—The gale has blown itself out, and at 4 a.m. we rolled out of our "pews" in obeyance to the Skipper's call of "Now, boys, all out and get under way!" It was bitter cold, but ten minutes at the mainsail halliards and a spell at windlass brakes soon warmed the blood and drove the sleep from the brain. It was a lovely moonlit morning, star spangled from nadir to zenith, and within twenty minutes the anchor was at the bows and under mainsail, foresail, jumbo and jib, we were standing out of the harbor. Passing through the Sound by Cape Forchu we lurched into the tremendous swell kicked up by yesterday's breeze and in this "old sea" we rolled and pitched with slatting sails and jerking booms.

Captain Apt was of the opinion that the fish would be found to the eastward alongshore and to the eastward we steered—going through the "Hospital"—otherwise inside of the islands lying off the Cape Sable shore. It was a fine day, frosty, but sunny and pleasant, and with a light breeze blowing, the schooner ambled easily along during the day, while the men overhauled their fishing gear and discussed prospects for better luck. 10 p.m. Little Hope Light abeam distant 6 miles. Frosty, starlit night. Wind light, steering east'ard.

JANUARY 5th, TUESDAY.—Sambro Head abeam, 7 a.m. distant 8 miles. Fine, clear, cold, sea smooth, barometer falling. 9 a.m. Came to the wind for a sound and got bottom at 55 fathoms. "We'll make a dip here," said the Skipper, and he sung out to the gang: "Now, boys, get three tubs up and your dories over!"

We carried an eight dory gang—two men to a dory—and in the bright winter sunlight our decks presented an animated appearance as the crowd, oilskin clad, seabooted and mittenned, scurried around getting the tubs of baited trawl up out of the hold and preparing the dories for launching. "Away on your port dory now!" cried the Skipper. "Throw her over!"

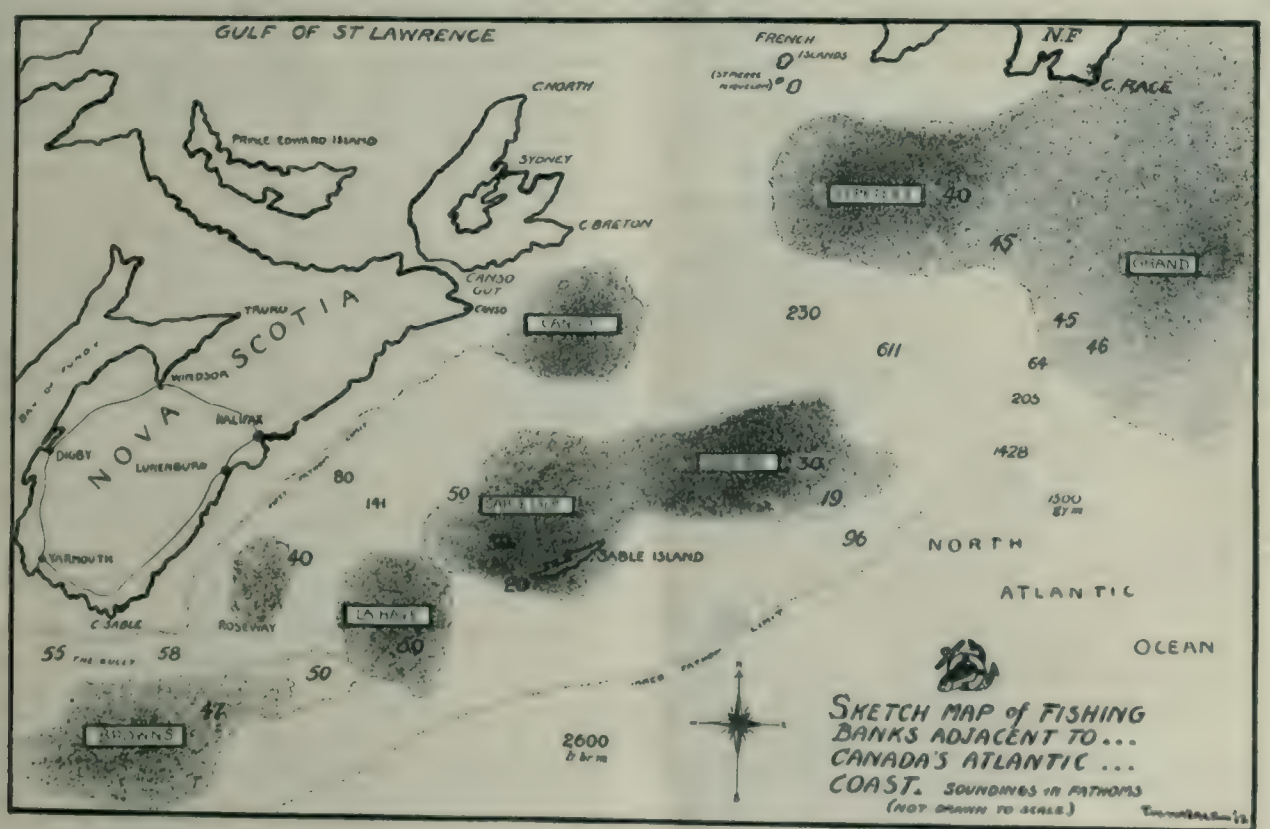
The dory tackles were hooked on and with a few lusty heaves the little boat was hove up out of the nest and over into the water. One of the men leaped in the dory and caught the three tubs of trawl which his dory-mate handed down to him, and after jumping in himself, the dory was dropped astern, towed by the schooner for a few minutes until the starboard dory was ready, and then let go. Within twenty or thirty minutes we had the whole string of eight dories and sixteen men out on the sea setting their long trawl lines, while the schooner, with the Skipper, Cook and myself aboard, jogged lazily to leeward of the little fleet.

The breeze freshened into a good sailing wind, and a big schooner which was on the horizon at dawn came romping down to us. She was heavily iced up all along her starboard side, having evidently been on the port tack for a long time, and as she came up on our weather quarter, her sheets were started and she swung down under our stern to speak to us. She was the Gloucester schooner "J. J. Flaherty"—one of the biggest of the American fleet—and as she bowled past, we hailed her. "Where are you from?"

"Bay of Islands, with the biggest cargo of frozen herring ever taken out of Newf'nland!" came the answer. "What's the war news? We ain't heard for two weeks!"

We sung out the loss of the cruiser "Formidable" with 700 men as she whirled out of hailing distance on her way to Gloucester.

At noon, the sun slid into a bank of mist, and the wind began to come from the southeast, chilly and stronger. At 2 p.m. we started in picking the dories up. Fish were scarce—some 8,000 pounds of haddock and cod being all we got for eight dories on a three tub set, and as soon as all the little craft were on



deck and nested, the men dressed the fish and stowed them away on ice in the hold.

The barometer and weather showed signs of a heavy blow to come, and as our little 90 tonner was a trifle small for lying out January gales offshore, the Skipper decided to make Halifax for a harbor until it eased up. Under the four lowers we stood in towards Chebucto Head ere darkness caught us. The wind breezed up quickly and as we ran in to the land, the schooner lurched and dived in a tumbling sea, rolling her lee rail under. The mainsail had a single reef in it—in fact, we had never shaken it out since we sailed—and she logged a good twelve knots running in.

The night shut down ere we had Camperdown abeam and when the searchlights from the Halifax Harbor forts began to play around the horizon, the Skipper considered the advisability of running into the Harbor in the darkness and chancing probable mines. War time regulations caused our crowd some little concern and not knowing whether we could run in the Harbor at night or if the buoys had been altered, the Skipper decided to come to an anchor under the lee of the land. It was black dark when we rounded to and hauled the jib off her, and standing in to the west-'ard of a pilot boat we ranged slowly in under Camperdown Wireless Station.

The anchor was swung over the bows and a range of chain hauled for'ard of the windlass. Aft, the leadsman was making a dip every minute or so and cursing the depth of the water. "Jumping Jupiter!" he exclaimed, "her bowsprit'll be over the beach before we get a bottom for anchoring." At last we got about 12 fathoms and with the rocky beach close aboard, let go the hook to a fair scope. The jumbo and foresail were hauled down and rolled up and with the mainsail set and two or three kerosene torches burning on deck we lay snug with the wind blowing a stiff southeaster overhead.

Over towards Halifax, the searchlights played across the rain-swept estuary. A liner passed out illuminated by the glare and the pilot boat passed in. It would be an impossibility for any craft to run into Halifax unobserved with those powerful lights sweeping the channel.

All night long the schooner growled at her anchor chain and every time she surged on the windlass the mudhook dragged a foot. However, with the wind off the land she could drag a long way without danger, so we turned in with carefree minds—glad that we were at anchor and not taking a dusting outside.

JANUARY 6th, WEDNESDAY.—It is still blowing hard outside, and the scud is flying overhead. A coaster passed out shortly after daylight with his staysail set. We watched him with curiosity to see if he would carry it outside of the lee of Chebucto Head. We were disappointed in our hopes, however, as Johnny Coaster hauled his staysail down before he opened out the Cape. It was a safe bet if his discretion had been lacking he would have lost staysail and topmast in the weight of the wind howling round that corner.

The fresh water in the tanks is getting low, so the Skipper decided to stand in to Halifax for a supply. Hoisting sail and anchor we stood up for the town until the sight of a slate colored guard ship loomed up ahead. "Better show the ensign," I suggested, "or we might get a shot plunked into us." The flag was routed out and bent on to the peak downhaul, and considering that we had done enough to prove that we were no hostile craft or German raider in disguise, we held on our course and crossed the guardship's bows.

The man-o-war's men were on to their job, however, and she blew her whistle for us to come to. We did—suddenly—as the next command might be a gun, and while lying to the wind, an examining officer and boat's crew came off to us. After explaining to the Navy man that we were only a humble Bank fisherman in for fresh water with no hostile aliens in the crew other than a suspicious character called "Norm" who hailed from Port Wade and who was the practical joker of the gang, he declared us free to enter, after informing us that the Russians had given the Turks a jolly good licking. War news was a great topic with our crowd and we looked forward, with a certain zest, to getting the Halifax papers.

We tied up at the North Atlantic Fisheries Wharf and went ashore to order the water boat, and to find out the fishing news.

(To be Continued Next Month.)

YARMOUTH, N.S.

(Special Correspondence.)

February has been the best month for the fishermen for some time—best in every way. The weather has been excellent, the catches good and the prices fair. In fact, as regards weather, we have to study the calendar to be sure that we are not in April. It is true the nights are a little cold, but no more so than many an April night, but the days are warm, considering the time of year. There is no frost in the ground except in shady spots, the streets are dried up and in some cases dusty, and last Friday (the 19th), at noon, your corerspondent saw two ladies sitting in a lawn chair, one sewing, the other reading. How's that for February! And again to-day in walking along the water front I saw three fishermen at work on their boats—two months ahead of the usual time. The proverbial "oldest inhabitant" cannot remember another February as mild as this has been. Of course, the fishermen have taken full advantage of it. The vessels are out continually, and they are making up this month what they have lost during November, December and January—and it was a lucky vessel which met expenses during those months. There was no long-drawn out gales like we have had in past seasons, but there was a continual succession of smaller gales, which kept a heavy sea running continually.

The lobster fishermen have done remarkably well in spite of all the gloomy forecasts of last autumn. Up to (but not including) the 20th of February the shipments of live lobsters have been 6,900 ½ crates, as compared with 6,293 for the corresponding period last season. The season opened with prices at $25 for large and $15 for small, but during the whole of this month they have been selling at $38 for large, $25 for small and $35 straight.

We have lost—probably only temporarily—one regular visitor to this port, the Digby schooner Loran B. Snow, which ran ashore in the Annapolis Basin and abandoned to the underwriters. She has since been floated, and no doubt we shall see her here again ere long.

Last week the American schooner James W. Parker (Captain Tufts, of Tusket, skipper) put in here to land a sick man. She had 35,000 pounds of fresh fish on board, which she trans-shipped to Boston while in port. At the time she was in, the Digby schooner Dorothy M. Smart was also here with 105,000 pounds, but she did not land, and took them to Digby afterwards. The Quickstep came in with her with 40,000

pounds, which she tried to dispose of, but as the price was not sufficiently attractive took them away again. By the way, Captain Tufts, of the Parker, met with a slight accident while in port. He undertook to coax the cabin fire along with kerosene, and as a consequence lost his moustache. He was lucky to get off so easily.

The Eddy James is fitting up for the spring halibut fishing, and will probably be one of the first away. It will not be long now before the whole fleet will be fitting out.

There is not much talk as yet as to whether there will be any increase in the boat fishermen this season. Work on land is fairly prevalent in town this season, all our factories working to capacity, and with lots of orders ahead. This is giving employment to a number who were fishing last season. But there is not likely to be a falling off at least. All the extra boats secured last year will be in commission no doubt, and possibly there will be a few others.

It will be noticed in the exports that there has been one box of fresh salmon shipped during the month. Generally in February there is at least one, and sometimes two, cases shipped. They are taken in Salmon River, Digby county, and the price—phew! but it makes a dish fit for a king. A man would only have to sell a few fish at February prices to put him in the Rockefeller class.

This months' exports were as follows:—Live lobsters. crates, 3,119; fresh fish, cases, 993; fresh smelts, boxes, 786; boneless cod, boxes, 3,946; fish clippings, barrels. 6; salt herring. barrels, 321; pickled salt fish, cases, 348; finnan haddies, boxes, 701; salt mackerel, barrels, 42; canned lobsters, cases, 1,021; fish waste, barrels. 243; clams, barrels, 77; dry salt fish, drums, 1 189; hake sounds, bags, 5; shooked scallops, barrels, 82; fresh halibut, cases, 3; eels, barrels, 18; fish skins, barrels, 38; fish scrap, barrels, 7; bloaters, boxes, 500; fresh salmon, box, 1; dry salt cod, drums, 95. To Panama: 75 drums dry salt fish. To Montevideo: 46 cases canned lobster. To St. Kitts: 40 casks dry salt fish.

The above list only represents the exports by boat to the United States. A large quantity of fish products have gone to England and Scotland, via Halifax. These were principally shipped by the Gateway Fish Company.

PACIFIC FISHERIES.

Fishing in British Columbia has been rather quiet for the past month, owing to the fact that the demand was less than the supply. Practically all grades of fish were available, but the local wholesalers found that they could not take care of all that was offered them, owing to the fact that Trade conditions seemed to have affected even fresh fish, and many standing orders were curtailed and some cancelled. This only goes to strengthen the idea that a vigorous movement is required to educate the Canadian Public to eat more fish. The idea seems to hold that if curtailment is necessary it should be in foodstuffs like fish. This of course is entirely a wrong impression, and on the face of it, it is remarkable that it is one of the mysteries of the present day.

It has been announced on good authority that Mr. Sandison has been successful in securing funds whereby h ecan amalgamate the interests of the Standard Fisheries and that of the late B. C. Fisheries. It is not expected that any action will be taken immediately, but that business will be renewed as soon as war and other conditions warrant. Of course the local idea is that both these companies put their plant in the wrong place and this was the cause of their troubles; whether the new company can overcome this, remains to be seen.

Smoked Fish.

The supply is plentiful, but still the same trouble exists, and that is, where one man sees another making a success, he immediately thinks he can come in and get the business by cutting prices and so spoiling the whole trade.

Finnan Haddie are about the most favorable smoked article in the stores here, and these are imported all the way from the Atlantic. The popularity of this fish and their arrival in good shape, goes to prove the care and scientific methods adopted by the Atlantic Packers.

Pickled Fish.

Owing to the fact that American Codfish Companies have a surplus this year, it seems as if they were prepared to ship into British Columbia their product at almost less than cost. Like all codfish companies the operators on the Pacific have a pool, whereby they agree to sell within their own country at certain prices. As this pool evidently does not aply to outside points, Alaska codfish is getting very firmly established on this market. Boneless fish, for instance, costing the jobbers nearly 3 cents less than one can import the Canadian for.

Local supplies of salt salmon are sufficient to take care of the trade and in this way we are more fortunate than our friends across the line. Seattle has had to import from San Francisco and prices have been high.

Salmon.

Steelheads are getting scarcer, owing to the fact that the Government Regulations prohibit fishing above a certain point in the river, the Season being now the close one. A few Springs are coming in from the north and from the West Coast of Vancouver Island, and the trade can easily take care of this. Owing to the fact, however, that the Coastal boats arrive on certain days, it means that a few days after their arrival the market is full and bare again until the next boat arrives.

Halibut.

The Schooner Knickerbocker, of the New England Fishing Company, has been keeping up her reputation, and arrived a few days ago with another large catch of 175,000 lbs. Fresh halibut is a little lower in price.

In Seattle it was down to 2½c per lb. one day, but these low prices are not a criterion at all. All the boats seem to arrive at once, and this naturally causes a glut.

There has been quite a stir in the local papers over the announcement that British Columbia halibut shipped via Prince Rupert has met with success. We hope that the movement will keep up, and that conditions caused by the war will tend to educate people over there to demand the Canadian fish regularly.

Codfish.

Supply is sufficient for demand, but unfortunately until our population increases the vast quantities of this fish available will have to be left alone. Our cod is in great abundance, but the fish is not of the same species as that in northern waters, and will not stand salting or other preparations. In time it will come in very useful for smoking purposes.

Mild Cured Salmon.

Practically all the surplus has been disposed of in British Columbia and the movement would have been quicker, but for the fact that the transportation facilities from the Atlantic Terminals were limited. The Hamburg-American line being off the run, and their large cold-storage capacity being thus eliminated, smaller boats had to take care of the movement.

Shellfish.

Crabs are good and a fair demand for the same. Shrimps and prawns are becoming more plentiful. Oysters are still sold in fair quantities, but one notices that the gallon, half-gallon and quarter-gallon packed in Seattle by such firms, as the Booth Fisheries Company are becoming more popular than the old-style of Sealshipt.

Other Fish.

Smelts are larger and coming in in larger quantities, and all that can be brought in are easily disposed of . Oolichan is putting in an appearance and is a very popular little fish. It puts one in mind of the Newfoundland Caplin somewhat, but more oily. Some of the Indians North always make a point of drying these fish, not for eating purposes, but for illumination, as they form very good torches.

Canned Salmon.

As stated before, the great part of the pack of canned salmon is sold ahead of the packing season, and usually by September the whole pack is out of the canner's hands. War conditions changed that this season, with the result, that after announcement of war, there were practically no sales for some months. What shipments were dispatched were those that were sold previous to that time.

Th last couple of weeks has seen some activity in in all grades, with the result that packers have been right busy disposing of their holdings. There seem to be many enquiries, through the Canadian Trade Commissioners of different countries, for canned salmon. Buyers seem to want direct importations, and Commisison men are looking for connections. As all these territories are coverel by direct agents, appointed some time ago, or else are taken care of by large English houses. There does not seem to be much inclination to answer direct enquiries.

This coming season will see a smaller pack of course, of the higher grade fish, but being a hump-back season, pinks ought to be pretty plentiful.

I note that the old Northern Cannery at the entrance of Vancouver Narrows is to be operated this year by the people who formerly leased the Scottish Canadian Cannery at Steveston. Outside of this there are no new Canneries reported for British Columbia. Several are reported under construction on Puget Sound and in Alaska.

Out of the contribution of 25,000 cases sent by the British Columbia Government to the Imperial Government, it is reported that the War Office is asking for 10,000 cases, and this looks as if canned salmon is to be placed on the Army Ration List. This is a matter that has been brought before the British Government many times, and it is hoped now that the use of canned salmon for army and navy rations will continue.

It might be interesting to readers of the Canadian Fisherman to know that Mr. H. Bell-Irving of H. Bell-Irving & Company, Ltd., has five sons in the Canadian and Imperial Army. All vounteered for active service. This is a showing that cannery men ought to be well-proud of.

Canned Salmon.—Sockeye, talls, $8.25; flats, $8.75; ½ flats, $1.25; Cohoes, talls $4.75, flats $4.75, ½ flats, $6.25; Pinks, talls $3.50, flats $3.50; Chums, talls $2.75, flats, $2.75.

Wholesale Fish Prices, Vancouver, B.C.

(Quoted by London Fish Co.)

Smoked Fish.—Finnan haddies, Atlantic 15s and 30s 9c per lb.; fillets 11c; bloaters 6c; kippers 7c; salmon 12c to 15c; halibut 12c; black cod 12c.

Frozen Fish.—Salmon Steelheads (round) 8c; salmon Cohoes (round) 6c; halibut, 7c; smelts black cod 8c.

Fresh Fish.—Salmon, red springs, 10c to 14c; do. white, 5c; halibut 7c; cod 5c; smelts 6c; herring 3c; Soles 5c; whiting 5c; skate 3c; perch 6c; rock cod 6c; Red Cod 3c; bass 6c; black cod 8c; shad (Columbia River) 8c.

Pickled Fish.—Black cod 8c; Pacific whole cod 6½c; herring, local, 6c; do. Atlantic, 5c.

Prepared Fish.—Acadia 12-2s and 24-2s, 14c; do. strips, 13½c; do. tablets, 14c; bluenose 1s and 2s 9½c; pilot do., 8½; Nova Scotia turkey 2s, 7½c; Pacific Boneless 8c.

Shell Fish.—Crabs (Boundary Bay), $1.00 to $1.20 doz.; Shrimps 12c to 18c lb.; prawns, 20c; clams, 9c; do. shelled $1.25 gal.; oysters, eastern shells 25c doz.; do., bulk, $2.85 gal.; do. Olympia, bulk, $3.25 gal.

Some Facts About the Halibut

Have halibut ears? They have. These ears are used to hear, and they are useful to the fish culturist to find out how old the halibut is. In the membranous cavities of the labyrinths of the ears of the fish there are various small vibrating calcareous bodies. Calcareous is a big word, but it means containing lime, or composed of lime. One of these small vibrating calcareous bodies is called an otolith, freely translated from the Greek meaning ear-stone.

How do you tell the age of the halibut? The answer to this question is: by the otoliths, and with what has been said already you have an intelligent idea of how to do the trick.

Again, how old is a halibut? Mr. Thompson by studying one hundred and fifty specimens came to the conclusion that a halibut reaches the age of nineteen years. It was a female halibut that reached this age in his investigations, the age of the male did not exceed fifteen years. The male grows to a less size than the female, and not so rapidly. The male at eight years of age has a body length of thirty-one inches; the female has a body length of thirty-six inches. At fifteen the male is forty inches long and the female fifty-two inches. The longest male Mr. Thompson found was forty-seven inches, and the longest female sixty-nine inches. He found that the graphic curves constructed for each catch show the male curve ceasing in a normal way between the lengths of forty and forty-four inches, but that of the female ceases at about sixty inches. He found also that the average length of the males in all catches is constantly less than that of the females. From this fact he concludes that if a size limit of forty-two inches is put to caught halibut, it would allow the escape of a large number of mature females with the loss of but few males.

Mr. Thompson in his six months cruising with the halibut schooners in Northern British Columbia and

Alaska waters, discovered many interesting facts, one of which was that one or other of the sexes of halibut might predominate at a given time on the halibut banks. In June he was off Yakutat, Alaska, when fifty halibut were taken in sequence over the side of the vessel. There were forty-eight females and two males. The two males were taken on contiguous hooks, and were only twenty-seven inches in length, as compared with an average length of forty inches for the females. In August, near Kodiak, Alaska, ninety-four fish showed 68 per cent males and 32 per cent females. In September off Middleton Island, Alaska, the proportion was 88 per cent females to 12 males.

He found that halibut in widely-separated districts vary in size and other respects. The length of the Alaskan halibut head is greater than that of the British Columbia halibut, and the male head is greater in Alaska waters but smaller in British Columbia waters, than the female. He believes that there is a striking correlation between the increasing size of the halibut head and latitude as one goes further north, and on this line he proposes to carry out further investigations. Finally, he is of the opinion that the differences in the size of the halibut heads is due either to the differences in racial construction, or to the modifying effect of climatical or other environmental features.

Some prominent fishermen on this coast have said that the halibut is cannibalistic, but Mr. Thompson makes no reference to this, so it is fair to assume that the pioneer fisherman, like many other of his kindred, has been drawing the long bow. Mr. Thompson says that the halibut feed on crabs, anemones, star-fish, sand lance, dog-fish, rat-fish, the arrow-toothed halibut, octopi, grey cod, salmon and even red cod. He found that crabs and grey cod formed the vast bulk of food for halibut on many banks while on at least one the halibut used many sand lance. Crabs and sand lance were eaten by halibut of small size, generally in shallower water, while the grey cod was eaten in great part on the banks further removed from the shore line. Hence the conculsion is forced that crabs and sand lance form the food of halibut inshore, while grey cod are on the bill of fare when the halibut is a long way off the shore.

When one realizes that the halibut is particularly the deep sea fish of British Columbia, and that the information given by Mr. Thompson is the most authoritative yet presented to the public, one is led to the conclusion that the British Columbia Government and the officials of the Department of Fisheries are to be congratulated on the results of Mr. Thompson's work.

FISH—AN ECONOMICAL AND PALATABLE FOOD.

By FREDERICK J. HASKIN.

(The following article which appeared in the Portland Express applies to the Canadian Fisheries just as much as to that of the United States.)

The discovery that the meat supply of the United States is rapidly dwindling, and the rise in prices of meat, have caused as great a stir and excited as much comment in the press as though such a state of affairs were quite unheard of and unaccountable. As a matter of fact, the present experience of the American people has been that of every country in the world with a large and growing population. China, England, Germany—in fact nearly all of the countries of Europe—found out long ago that neither by domestic production nor by importation could their people be adequately supplied with meat at a reasonable price. And all of them have practically solved the question in the quickest and easiest way; namely, by turning to the sea for the nitrogenous food that the land was no longer able to produce in sufficient quantities.

There is a double economy in the substitution of fish for meat in the national bill of fare. Not only is the nitrogenous element in the diet thus supplied more cheaply and from a literally inexhaustible source; but every pound of fish eaten in place of meat means just that much more land which may be devoted to the raising of vegetable food.

This solution of the meat problem seems to have been the last to be considered in the United States. Great plans are under way to increase the national supply of beef, mutton and pork, but little has been said and less done to increase the production and the consumption of fish. And, in truth, there is little that can be done except to educate the people as to the food value of the fish that swarm near all of our coasts, and the best methods of preparing them for the table.

Of the numerous and valuable varieties of fish obtainable in this country, only a few are eaten at all, and those instead of being the piece de resistance upon the bill of fare, almost invariably are served as an entree, and appear rather in deference to the European customs which we imitate than because we really appreciate their food value. And yet, fish contains fully as much protein as meat, and is poorer only in the fats of which our rich diet supplies a large amount in other forms. Roast beef contains about 19.7 per cent of protein, while cod steaks contain about 18.1 per cent; loin of beef is 17.9 per cent protein, and black bass 20 per cent; ribs of beef are about 17 per cent protein and blue fish nearly 10 per cent.

Do Not Appreciate Food Value of Fish.

The fact that Americans do not effect the great national economy which a proper utilization of our fishery resources would make possible can be ascribed to no cause except that we do not know the food value of fishes nor understand their preparation. Americans abroad praise the English whitebait, the fillet of sole served in Paris, the smoked salmon sandwiches so universally eaten in Germany. Yet the sand dab of the coast of Southern California is just as good a fish as the European sole and the Pompane of the south, the whitefish of the Great Lakes, and the mackerel and bluefish of the Atlantic Coast are fully the equal of the most prized piscatorial delicacies of Europe. The smoked salmon of Germany is very likely from our own Pacific fisheries. In the five years between 1905 and 1910 we exported over 11,500,000 worth of fresh and cured salmon to Germany. The splendid "steel head" salmon of our Pacific fisheries are frozen hard and sent to Germany to be eaten fresh, because there is no home market where they command an adequate price.

Many varieties of fish eagerly sought in Europe are not eaten at all in this country except by our foreign-born population. A soup considered a delicacy in Naples is made from a fish closely related to the "squid" of our waters, a creature similar to the octopus, and used in this country chiefly for bait. The "raie au beurre noir" of Paris is made from a part of the skate, or ray, which is abundant along the American coasts, but not salable in the markets. Many an American would pay a stiff price for this dish in Paris, and smack his lips over it, but if he saw one of the fish from which it is made in the market he would not know what it was.

The American housewife not only does not know how to prepare the different varieties of fish, so as to make them attractive, and is entirely ignorant of the sauces and salads that should accompany them, but she does not even know the names of more than a fraction of the varieties upon the market. In cities near the Atlantic coast there is a steady demand for halibut, cod, bluefish, weakfish and panfish, but very few housewives know what to ask for if they wish to vary this list. Yet flounder, haddock, hake, herring, mackerel, pollock, scup, sea bass, smelts, whiting, ciscoes and lake trout are obtainable in the markets of the Atlantic states. A study of these fishes and how to prepare them would enable the average American housewife to economize on her meat bill much more effectively than by trying to cook neck cuts of beef and mutton.

A typical neglected fish of our coasts is the dogfish, so-called because he does not in any way resemble a dog. There being absolutely no demand for him on the American market, the dogfish spends his days preying upon the much prized lobster. Between dogfish and the lovers of "a la Neuberg," the lobster is now in danger of extinction, and the only remedy seems to be to induce people to eat dogfish. He is very palatable, having delicate flesh that cuts into steaks like that of a cod.

A splendid example of how a country may encourage both the production and the consumption of fish is afforded by Germany. The German government had expended great sums for the construction of fish harbors at Geestemunde, Emden, Cuxhaven and other ports. To encourage herring production a bounty was paid for the construction and equipment of each sailing vessel used for that purpose, and all fishing vessels were exempted from the payment of tonnage dues. As a result of these measures, the number of sailing luggers in that country engaged in fishing increased between 1899 and 1909 from 101 to 190.

To facilitate the distribution of her increased catch, Germany has made special rates for the shipment of fish inland, sending them by express freight at regular freight rates, which is a deduction of about 100 per cent. The fastest trains are used for the shipment of fish, so that they may reach their destination in good condition.

Germany has also recognized the necessity, which is most apparent in this country, for educating the people regarding the different kinds of fish, their food value, and how to prepare them. Moving pictures were used by the German government to show inland people what the different kinds of fish looked like, and how they should be cooked. The inland people of Germany were as ignorant about fish as are the bulk of American people; but the moving pictures immediately caught their attention, and a great demand for fish was created, resulting in an era of unusual prosperity for the fishing industry. Indeed, so great has the demand for fish become in Germany, that great quantities are annually imported.

Every effort has been made in Germany to furnish the people with this variety of food at a low cost. In Berlin, for example, semi-weekly sales of fish at cost have been held in the public market stalls, where the prices were one or two per cent cheaper than at retail shops. Despite all of these efforts, however, many of the finest salmon caught in this country are frozen and sent all the way from the Pacific Coast to Germany, because the Germans appreciate high grade fish and will pay a good price for them, while Americans will not.

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Vol. II. MONTREAL, APRIL, 1915 No. 4

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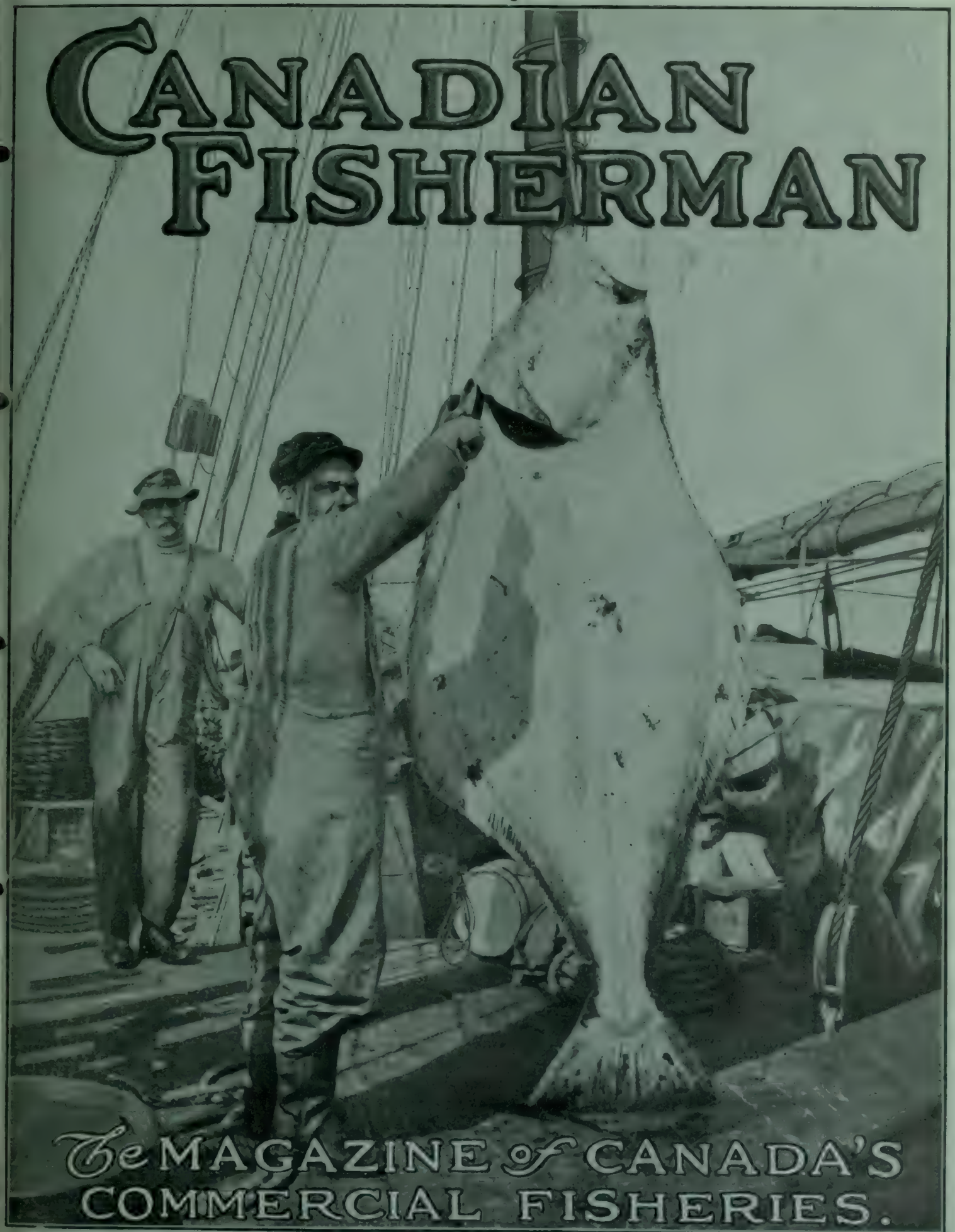

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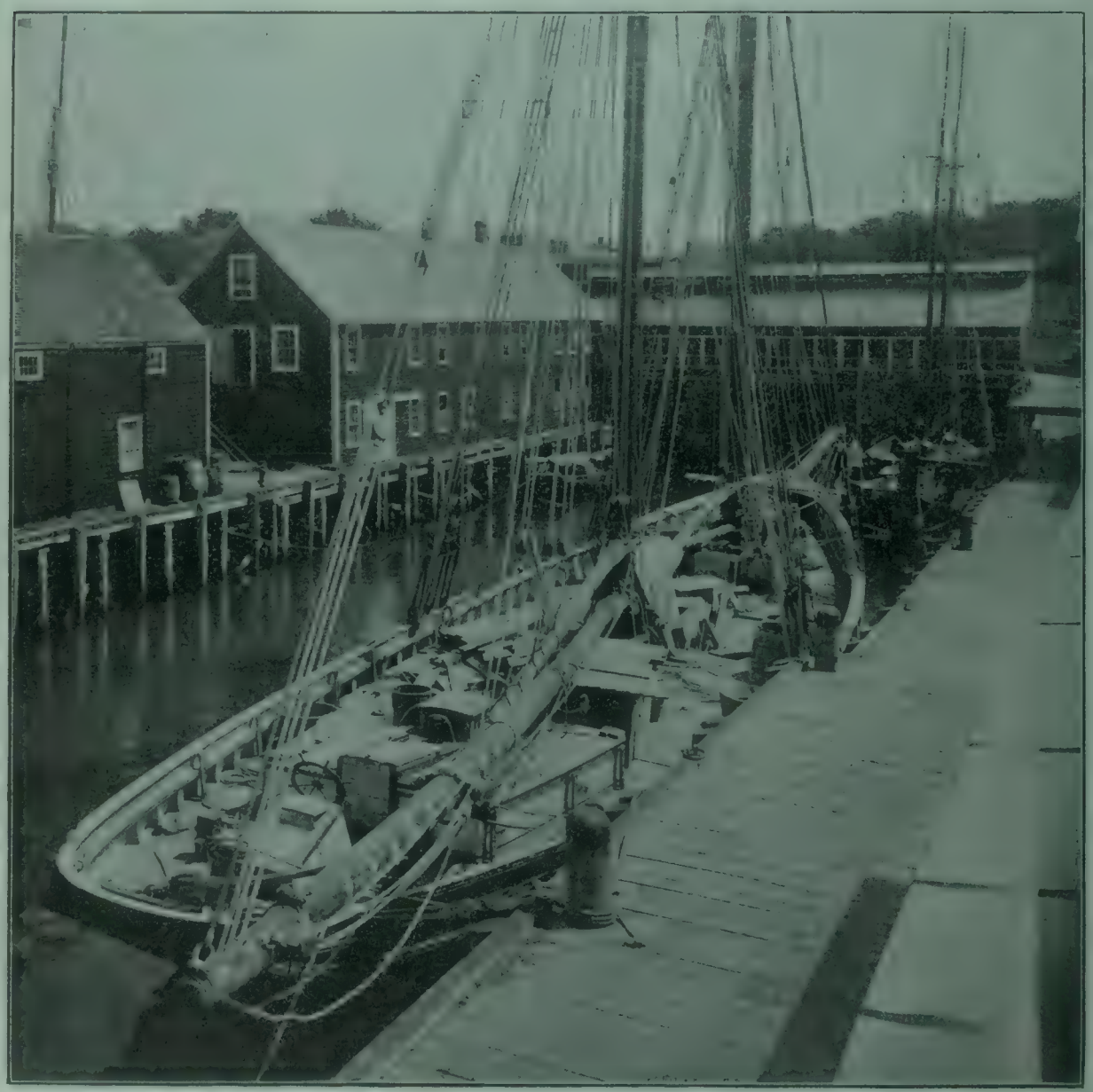

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To The Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to--

THE MINISTER OF COLONIZATION,
MINES AND FISHERIES OF THE PROVINCE OF QUEBEC

Department of Marine and Fisheries

LOBSTER FISHERY FISHING SEASONS
IN FORCE ON DECEMBER 1st, 1913

Number of District	LIMITS	Fishing Season	Size
1	St. John and Charlotte Counties, N.B.	Nov. 15 to June 15	4¾" carapace
2	Albert County, N.B. and Kings and Annapolis Counties, N.S.	Jan. 15 to June 29	No size limit.
3	Digby County	Jan. 6 to June 15	No size limit.
4	Yarmouth, Shelburne, Queens, Lunenburg, and that portion of Halif ax County West of a line running S.S.E. from St. George's Island, Halifax Harbour, and coinciding with Fairway buoys.	Dec. 15 to May 30	No size limit.
5	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys, eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite.	April 1 to June 30	No size limit.
6	From Red Point, between Martin Point and Point Michaud, along the eastern coast of Cape Breton Island, around Cape North as far as Cape St. Lawrence; a so the north shore of the Gulf of St. Lawrence from and including Blanc Sablon, westwardly to the head of tide, embracing the shores of the adjacent islands, including Anticosti Island.	May 1st to July 31	No size limit.
7	The Magdalen Islands, including Bird Rocks and Bryon Island.	May 1st to July 20	No size limit.
8	Waters of Northumberland Strait, between a line on the N. W. drawn from Chockfish River, N.B., to West Pt., P.E.I., and a line on the S.E. drawn from Indian Point, near Cape Tormentine, N.B., to Cape Traverse, P.E.I.	May 25 to Aug. 10	No size limit.
9	The waters around P. E. Island except those specified in No. 8.	April 26 to July 10	No size limit.
10	From, but not including, Cape St. Lawrence, Cape Breton Islands, south-westwardly to Flat Point, Inverness County, and from the Lighthouse in Antigonish County opposite Flat Point, westwardly along the strait of Northumberland and coast of Nova Scotia to Indian Point, near Cape Tormentine, N.B., and northwardly from Chockfish River, N.B., embracing the coast and waters of a portion of Kent County and of Northumberland, Gloucester, Restigouche Counties, N.B., and the coast and waters thereof of the Counties of Quebec, south of the St. Lawrence River.	April 20 to July 10	No size limit.

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of Marine and Fisheries is required.

Canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery, and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF NADA, THE SCIENCE OF THE FISH CULTURE AND THE USE AND - VALUE OF FISH PRODUCTS -

F. WILLIAM WALLACE
EDITOR

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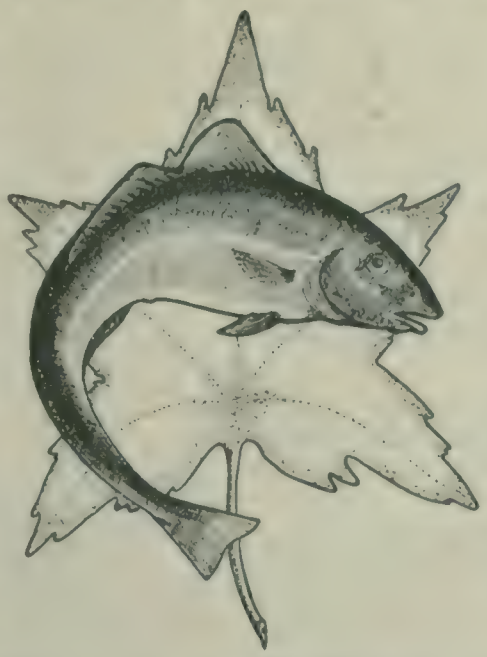

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Official Organ of the Canadian Fisheries Association

Vol. II. MONTREAL, APRIL, 1915 No. 4

Canadian Fisheries Association

The wide-spread interest which has been aroused among the trade by the formation of the Canadian Fisheries Association is evidence that the organization is a much needed one. The membership is mounting up daily and it is safe to assume that the Association will include all the enterprising members of the fishing industry of Canada before many months are past.

The Association got away to a good start and if the rapidly increasing membership is any criterion it will retain and keep up the high standard set for it by the promoters. A noticeable feature is the number of retailers who are becoming identified with the movement—a fact which shows they are quick to realize the importance of the Association's plans to educate the public to the value of fish as a food.

Intending members should send in their applications without delay. The sooner we can enrol a large membership the quicker we can start in to carry out the objects of the Association. Conditions in Canada at present have developed an opportune time for commencing a publicity campaign in fish foods and the Association wants to be in a position to take advantage of it. Many other problems of long standing require to be adjusted and every individual or firm engaged in Canada's Fishing Industry with any interest in the development of the business should not neglect to enroll as soon as possible.

A recent Trade Report in speaking of the development of the fish trade in Germany states: "In Germany, for instance, there has been in recent years a pronounced increase in the demand for fish—an increase due in no small measure to the active campaign pursued by the German Sea Fisheries Society in popularizing sea food. Before the war broke out the demand for fish was so great in Germany that English fishing craft were running their trips direct to German ports. In 1913, no less than 39,700,000 pounds of herring were landed direct from British fishing vessels at Altona and other German ports." When war broke out, an exchange says, the Municipality of Berlin bought 600,000 quintals of codfish as a precaution against a shortage of food. The Municipality made the announcement that one pound of dried cod contains the same nutritious substance as three pounds of meat, and gave all housewives advice on "How to Cook Fish."

Germany has led the way in a good many things—barbarous and piratical methods of warfare included—but while we do not care to emulate their example in outrages, yet we can take a leaf from their book in the matter of organizations which have for their object the development of natural resources. What the German Sea Fisheries Society and the National Sea Fisheries Protection Association have done for the trade in Germany and Great Britain, the Canadian Fisheries Association can do the same in Canada.

Using the slogan of Kitchener's Army, we say: "Enrol now!" As the army is being enrolled to crush militarism, so we urge the persons engaged in Canada's Fishing Industry to enrol now and aid in crushing prejudice, unnecessary handicaps and ignorance.

The Toll of the Sea

Twenty-eight men is the toll of the sea in the fisheries of Gloucester for 1914. Sixteen of them were Canadians, six hailed from Newfoundland, one was a Portuguese from Azores, and the others were Americans. In the lost fishermen of the U.S. fisheries, Canada and Newfoundland always figure largely in the proportion of the men lost in the fisheries.

The Canadians who lost their lives on American fishing craft are as follows:—

Louis Amero, 18 years old, single, native of Yarmouth, N.S., one of the crew of sch. Arethusa, thrown overboard by the slat of the boom February 18 while crossing the Bay of Fundy.

John Hiltz, 53 years old, married, native of Chester, N.S., one of the crew of steamer Randolph, fell overboard off Thatcher's island, April 2, left widow and one daughter.

Ben Clair Thomas, 26 years old, married, native of Cape Negro, N.S., one of the crew of sch. Lillian, thrown overboard while hooking the main boom tackle off Sable Island, May 2.

Willfred Stoddart, 30 years of age, married, native of Barrington, N.S., one of the crew of sch. Gladys and Nellie, run down in his dory by the vessel in South Channel, May 8.

Frank Henderson, 35 years old, single, native of Cape Breton, N.S., died on board sch. Corsair, May 8, off Cape Cod, while on a mackerel trip.

John Malcolm, 40 years old, widower, native of Caribou Cove, N.S., and Joseph Arsenault, 35 years of age, single, native of Prince Edward Island, two of the crew of sch. Rex, went astray from their vessel on Grand Banks, June 20. Malcolm left three children.

Allen J. McDonald, 24 years old, native of St. Peters, N.S., died at the Addison Gilbert hospital June 26, from pneumonia, contracted on a fishing trip.

James Fitzgerald, 50 years old, single, native of Whitehead, N.S., one of the crew of sch. Squanto, died on board the vessel, July 18, at Canso, N.S.

Andrew Merchant, 38 years old, single, native of Arichat, N.S., one of the crew of sch. Squanto, drowned at T wharf, Boston, August 21, while boarding his vessel.

George S. Ross, 52 years old, married, native of Guysboro, N.S., one of the crew of sch. Preceptor, died on Grand Banks, August 28, of heart trouble, left widow and seven children.

George M. Colson, 28 years old, single, native of Yarmouth County, N.S., one of the crew of sch. Clintonia, killed on board the vessel at Souris, P.E.I., by being struck by falling gaff.

Duncan McLain, 60 years old, single, native of Cape Breton, N.S., one of the crew of sch. Marsala, fell overboard on Brown's Bank September 30 while wrestling with a shipmate, who swam to the vessel and was rescued.

Capt. Miles M. Somers, 48 years old, single, native of Tracadie, N.S., died on board sch. Hope off Pensacola, Fla., October 4 from heart disease, being found dead in his bunk.

George Tibbets, 49 years old, married, native of Weymouth, N.S., one of the crew of sloop Malicia Enos, went astray from their vessel off Thacher's Island November 26. Tibbets left a widow and three children.

John Sperry, 63 years old, single, native of LaHave, N.S., one of the crew of sch. Mary E. Harty, died at the Chelsea Marine Hospital, December 28.

The Newfoundlanders lost are as follows:—

James Organ, 27 years old, single, native of Bay of Indians, N.F., one ofthe crew of sch. Alice, went astray in his dory in a snow storm off the Cape shore January 21.

Wm. Morrissey, 30 years old, single, native of Placentia Bay, N.F., washed overboard from sch. Corona on Green Bank, February 17.

Ambrose Griffin, 25 years of age, single, native of Newfoundland, one of the crew of sch. Gladys and Nellie, went astray in his dory in South Channel, May 8.

Capt. James McLennon 27 years old, single, native of Placentia, N.F., master of sch. Avalon, died in a hospital at Shelburne, N.S., June 16, from blood poisoning resulting from a wound in his finger from a hook.

James Hurley, 34 years of age, single native of Newfoundland, one of the crew of sch. Ida M. Silva, found drowned in the dock at Pensacola, Fla., in June.

Lawrence Williams, 45 years of age, single, native of Bay Bulls, N.F., drowned in the harbor August 29 while boarding sch. Paragon.

Considering the risks which fishermen run while plying their vocation, the list is remarkably small. Of the whole total only five men were lost by getting astray from the vessel in their dories while on the Banks. Going astray is quite a common experience, especially in winter when sudden snow squalls shut down and separate the dories from the schooner, but in the majority of cases the men are picked up by other vessels or else make the land somewhere. Six men were drowned by being washed overboard or falling overboard from the vessel—a very small proportion compared with the old days. The diminution in this particular case may be accounted for in the more seaworthy type of craft employed in the bank fisheries. The modern Banker will sail and lie-to in heavy weather without shipping a sea of any consequence—a vastly different thing from the old scows which had the whole of the Western Ocean on their decks in anything of a breeze.

Because the proportion of lost is very small, it is not to be assumed for one moment that there is no risk. Every man who goes Bank fishing risks his life, and has a continual series of hairbreadth escapes from death, but where "a miss is as good as a mile," very little thought is given to the close calls.

Fish for the Canadian Soldiers

After a great deal of "getting after" the powers that be in Ottawa, the fish dealers managed to have fish put upon the menu of the soldiers in training at the various camps and barracks throughout the country. It was not a case of forcing the soldiers to eat fish to help the dealers out. The soldiers themselves wanted it—no doubt as a change to the meat they were in the habit of worrying.

The permission was granted to vary the menu with fish, but how much fish has been consumed by the soldiers since the permit was granted? We are curious to know. Out on the Pacific Coast about one ton of halibut has been eaten by the troops so far, and enquiries among Eastern dealers bring the usual reply: "Haven't heard of any orders!"

We presume the fish orders rest largely with the officer in charge of the local commissariat department. Perhaps he, personally, doesn't like fish, so he does not order a supply. The tastes of the men are not considered. According to the Regulations they can make complaints but we'd like to hear of the soldier with nerve enough to make a kick when the officer comes into the mess room with the orthodox "Any complaints, men?" Like the sailors aboard of the old-time windjammers they can growl all they like in private. "You may think what you like, but you dare not say it."

Of course, we may be misinformed, but so far fish has not been supplied to the soldiers in anything like the quaitity expected. What is there against fish as a ration? It is cheap enough. There is plenty of variety, and every medical authority will vouch for the fact that a fish diet is every bit as healthful and as sustaining as meat—probably more so. The Japanese soldiers lived largely upon fish in the Russo-Japanese war and nobody could say they were not tough and hardy fighting men.

We know for a fact that fish is appreciated by the Canadian soldiers. A vast number of them are British born, and they know what it is to eat fish regularly. They have it three and four times a week in the Old Country.

We understand that the soldiers are undergoing physical training in addition to military drill. Their diet has been carefully selected with a view to get them into good condition to stand hardships. In so far as fish is concerned, we quote the following instance related by Lord Strathcona:—One year, at certain posts of the Hudson Bay Company, the men had to feed for months on fish exclusively, when at some other posts supplies of meat alone had been available. According to his statement, the men who had been fed on fish only showed more power of endurance, less fatigue, and behaved better under physical strain than the men fed on meat food alone.

In view of the above, why has a fish diet been practically neglected?

1915 APRIL FISH DAY CALENDAR 1915

Sun.	*Mon.*	*Tues.*	*Wed.*	*Thur.*	*Fri.*	*Sat.*
-	-	-	-	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	-

April 3rd—HOLY SATURDAY

Piscatorial Paragraphs

We wish to call attention to the article by Professor Prince on the "Utilization of Kelp Beds," published in this issue. The harvest of the sea is not confined to fish alone—the marine growths also have their marketable value, and the Professor's article outlines the opportunities for commercial exploitation. Professor Prince writes with the pen of a world-wide authority on icthyology. He has made the most elaborate surveys of Canada's fisheries — lake, river and ocean — and is probably the best informed man on Canada's fishery resources to-day. The Professor has recently returned from New Zealand, where he made an investigation into the fisheries of that island. Under his supervision, exhaustive surveys were made, and the New Zealand Government are reorganizing their fisheries administration upon Professor Prince's suggestions.

* * *

The British "Fishing News," springs the following joke on us. The British Columbia men can appreciate it better than the easterners:—

In some parts of the Canadian back country, the recurrence of boiled salmon, broiled salmon, salmon cutlets, and salmon steak at every meal becomes, after a few weeks a trifle monotonous. To the native palate, brought up on it, this constant reappearance of the self-same dish is a matter of course; but to the newly-arrived tourist it grows at last into a feeble joke.

"Is there nothing else for breakfast?" said one such victim of Colonial hospitality, as a whole fish and a pot of mustard were laid before him on the table.

"Nothing else!" replied the host in surprise. "Why, there's salmon enough here for six, ain't there?"

"Yes," responded the guest mildly, "but I don't care for salmon."

"Well, then, fire into the mustard," was the rejoinder.

* * *

The fish dealers in Canada have been suffering from the effects of an unusually open winter. The old fashioned brand with plenty of frosty weather and snow seems to have departed. Mild weather has prevailed at the most unseasonable times. This is all right for those who do not like the rigors of our usual winter climate, but for the fish men it has entailed a great deal of trouble. Fish stocks have had to be placed in freezers and cold storages adding largely to the cost of handling and many merchants have been loaded up with frozen stock. We can hardly blame the war for this change in our climate.

* * *

The unusual weather has proved a good thing for the English steam trawler "Rayondor." The trawler fished out of Nova Scotia all last summer and was to have returned home at Christmas. The weather kept so mild and the grounds she fished on free from ice that she hung on, and put the whole winter in fishing out of Canso and landing several large trips. The luck has certainly been with her. If she had returned to English waters the war blockade would have prevented her from fishing over there.

* * *

A large number of British steam fishing craft are being employed as patrol boats around the British coasts. The heavy rewards offered for the sinking of German submarines has inspired the skippers and crews of the trawlers and they are keeping vigilant look-outs for signs of them. The method of sinking submarines is to ram them as soon as they appear. Submarine hunting is becoming one of England's national sports, and offers plenty of excitement.

* * *

A lady went into an English fish market to buy some fresh haddock. The salesman held up several fish for her inspection, but as they were all of the "slink" variety, she did not seem eager to purchase. At last the fishmonger lost his patience. "Wot's the matter with them bloomin' fish?" he enquired.

"Well," answered the lady, "they're very thin and mean looking."

"Oh, they are, are they?" said the fishy one, sarcastically. "Well, you'd look thin an' mean lookin' yerself if you'd been chivvied arahnd the North Sea by them bloomin' torpedoes an' submarines ever since last August!"

* * *

Captain J. A. Farquhar, whose article on "What can be done to protect our Fisheries," is published in this number, was one of the members present at the Canadian Fisheries Association meeting at Ottawa last month. Captain Farquhar sailed out of Halifax on March 5th in command of the S.S. "Seal" bound for the sealing grounds in the Gulf and off the Newfoundland coast. Here's wishing him the sealer's luck of "bloody decks and a greasy hold!"

* * *

Mr. A. L| Hager, President of the Canadian Fishing Company, Vancouver, was in Montreal recently while on his return to the west. While visiting several U.S. and Canadian cities on his trip, Mr. Hager received many compliments and expressions of satisfaction with the quality and condition of the British Columbia fish shipped east. Like all the British Columbia fish men, Mr. Hagar is exceedingly optimistic as to the future of the Pacific fisheries, and considers they have the finest and most prolific fishing grounds in the world. The fisheries of British Columbia have certainly risen to an important position within a very short time, and much of the development is due to the enterprise and business acumen of the men engaged in the Coast fisheries. Mr. Hager is a Director of the Canadian Fisheries Association and a member of the General Improvement Committee.

THE COMMERCIAL VALUE OF KELP BEDS ON THE PACIFIC COAST OF CANADA

A condensed summary of Professor A. T. Cameron's Report to Biological Board, Naval Dept., Ottawa.

By Professor EDWARD E. PRINCE,
Dominion Commissioner of Fisheries.

Commercial Value of potash and iodine products.

The principal fertilizer matters in kelp are potassium chloride and phosphates. If the kelp be mixed with the soil directly, the valuable iodine is lost. Since the war began, the price of potassium has risen considerably as the Stassfurt Potash Syndicate controlled the supply and price in the markets of the world.

Potash is used in many industries, also as a fertilizer on land. It is important in glass and soap making, and in the manufacture of many chemical products, such as caustic potash, carbonate and bicarbonate of potash, potash alums, cyanide, including potassium cyanide; also various bleaching chemicals, dye stuffs, explosives, (containing potassium nitrate), and a long list of chemicals. The working of low grade gold ores requires a large supply of potassium cyanide.

The vast demand for these products is shown by the importations by the United States during the last three years, which according to "Science" amounted to 635,000,000 lbs. of potassium salts, $11,000,000 in value. This is exclusive of kainit and manure salts. The total quantity indeed averaged 700,000 tons, valued at $4,300,000 annually. The total U. S. importations of potash salts thus exceeds $15,000,000 annually. In Canada the total imports of potash products and of crude iodine is about $661,000 annually, but has risen recently to probably about $1,000,000 per annum.

The United States realizing their dependence upon outside sources, authorized an investigation into the kelp sources of the Pacific Coast, and last summer voted $7,000 for the publishing of the results.

Description of Sea Kelp Yielding Potash etc.

The Pacific Coast of British Columbia has an abundant seaweed-flora, including about fourteen common species; but of these only two namely the Bull Kelp, ("Nereocystis lutkeana") and the long bladder kelp ("Macrocystis pyrifera") are of economic value and importance.

The former consists of a long stalk branched below into an anchor or holdfast which clings to rocks and rocky crevices some fathoms below the surface of the sea, and swelling above into a hollow bladder or float containing air. To the bladder many long fronds are attached. It grows in one to two or ten fathoms depth usually, though most frequently in depths from four to six fathoms, and it reaches a great length; some specimens got near Haro Strait being sixty-three feet long, and a specimen one hundred and eleven feet long is reported from Nanwhitti Bar, off the North Coast of Vancouver Island.

The second species, the Long Bladder Kelp, ("Macrocystis pyrifera"), often called sea-ivy or flag weed, consists of a holdfast of many whorls extending upwards into many stalks, each stalk giving off at intervals large ivy-shaped fronds, jointed to the stalk by a bladder. The length is forty to fifty feet in Barkley Sound and thirty feet or less on the North Coast of Vancouver Island. California specimens are recorded of a length of one hundred and fifty feet. The species occur all along the British Columbia Coast, excepting the inner coastal waters from Ten Mile Point near Victoria to Port McNeil, and its absence must be due to the lessened salinity of the water.

Conditions Affecting Growth of Valuable Kelps.

Four conditions are important. (1) A rocky bottom three to six or eight fathoms deep and of granite or conglomerate is the best, but sandstone, limestone, shingle or mud are not favourable.

(2) A marked tidal current of three to five knots per hour maximum. Kelp is usually absent if the current is six or more knots per hour, and if less than three to five knots it does not grow luxuriantly. The bladder kelp prefers stronger currents than the bull kelp.

(3) The saltness of the water is an important factor in the growth of kelp which does not grow in brackish water, though the bull kelp attains moderate size in less than two-thirds ocean salinity (mean density 1.019) or even lower (a density of 1.013 for example); but length and weight increasing with increased salinity, and the bladder kelp does not grow at all until a higher salinity is reached and is common where the salinity is 1.022 off the North Coast of Vancouver Island.

(4) The effect of temperature is less marked but data is not available in regard to the two species under consideration. In sheltered bays in the Strait of Georgia the bull kelp disintegrates sooner than usual where the temperature is moderately high, in midsummer 60 to 65 F.

Life history of Bull- and Bladder-Kelp.

The bull kelp is a yearly plant growing rapidly in spring, maturing in July, and then decaying more or less rapidly. The beds are thickest from July to September or October, but many plants are visible throughout the year, as the young ones attain some size before the older plants have disappeared. They spread by some means of floating spores and according to U. S. authority Dr. Rigg, kelp plants can be cut after July 15th as the spores have been discharged before that time. This applies to Puget Sound, but it is probable that further North the plants reach a full size slightly later, and the harvesting of the kelp should be deferred accordingly; but more information is required.

*The Report in full, with detailed analysis and charts is in the press and will be issued in the Report of the Biological Board of Canada, Naval Department, Ottawa.

2nd. Bladder Kelp has a life longer than one year, and the spores are discharged from portions of the fronds down towards the root or base, so that the greater portion of the plant can be cut without interfering with the scattering of the spores.

Extent and Value of the B. C. Kelp Beds.

The investigation in 1914 had two principal aims, —(1) An estimate of the total amount of kelp commercially available, and (2) an estimate of the proportion that could be harvested at a profit. With this in view seven areas were surveyed and typical portions mapped out so that the average yield per mile of coast line could be estimated approximately.

Area A. comprised the South-east Coast of Vancouver Island from a point North of Nanoose Bay to the International boundary North of San Juan Island and extending outside Gabriola, Valdez and Galiano Islands, the water in which area is of moderate salinity, abounding in reefs, and comprising about five hundred miles of coast line.

Area B. includes Howe Sound and Burrard Inlet. The water is of typical, brackish character, and the area extends about two hundred miles coast line.

Area C. This area extends along the North coast of Vancouver Island from Hope Island to the entrance to Johnstone Strait, and including one half of this portion of Queen Charlotte Sound. The coast line extends about two hundred and forty miles, and the waters are of fairly high salinity.

Area D. The area South of area A, and including Haro Straits and the Islands between San Juan and the mainland.

Area E. embraces the channels between Vancouver Island and the mainland from Texada Island North to Johnstone Strait.

Area F. Bankley and the Alberni Canal District, the waters of which are typical of the West coast.

Area G. is in the Northern portion of the Province including the entrance to the Skeena River and extends from the North end of Banks Island to the reefs of Port Simpson, including the Prince Rupert area.

It was intended to examine the Queen Charlotte Island beds and Rose Spit was visited, but on the outbreak of the war, the work ceased.

Method of Examination.

The estimates reached as to the extent of the kelp resources are approximate but undoubtedly conservative. Beds were considered thick which contained two or more plants per square yard and often the beds were much thicker than that. Thin beds were estimated to contain on an average one plant per square yard. The width of the various beds was roughly estimated and fringes close in shore were considered as about five yards wide. A number of typical specimens were weighed to give the average weight per square yard. The plants weighed included the fronds, the bladder and eight or ten feet of the stalk. The calculations have been based on the weight and thickness of the bull kelp as it is found more difficult to estimate the weight of bladder kelp beds. Probably the two species are not very diverse, and in any case most of the kelp beds consist of bull kelp. Knowing the extent of the beds, the number of plants per square yard, and the average weight of each plant, the weight of any kelp in any area can be at once estimated.

It will be necessary to refer to the detailed report in order to ascertain the particulars for each part of the various areas or districts, but the general result in District "A" shows that there must be about 122,760 tons of kelp available, or an average of 245 tons per mile of coast line in that area; but there is a marked difference in the productiveness in the southern part, south of Salt Spring Island where the average yield is estimated at 750 tons per mile, as compared with the northern district where the production would probably be 200 tons per mile; the difference doubtless due to the small mean salinity, caused by the inflow the fresh water from the Fraser River and other outlets from the interior of the mainland.

In District "B" areas such as Howe Sound yield no kelp owing mainly to the great depth, sixty fathoms, reached a few feet out from shore, while in Burrard Inlet a single patch of Nereocystis occurs, but the extensive sand flats at the mouth of the Fraser River produce no kelp.

District "C" is much richer in kelp than district "A", and not only are the beds of considerable area, but the kelp grows to a much greater size than elsewhere, and in "tide-rips" where kelp grows most luxuriantly. A large patch north of Haddington Island shows an average yield of 960 tons per mile estimated for the whole coast of the District, 240 miles, which would mean a total production of 224,640 tons; a much higher yield than for District "A", corresponding to a higher mean density of sea water.

District "D" was only roughly examined owing to the circumstances of this season, and the average yield is probably much the same as that for the southern portion of District "A".

District "E" which includes the channels between the north-east of Vancouver Island and the mainland, yields very little kelp. There are occasional patches and fringes, but the amount is limited.

At Port Neville kelp abounds, and further north no doubt it is abundant and would repay careful examination.

District "F" may be regarded as typical of the best coast inlets of Vancouver Island. Both kinds of kelp occur, but it is doubtful if it would pay to harvest it. The salinity is below that of the ocean and favourable for bladder kelp.

District 'G" Prince Rupert region. A vast network of channels occurs in this region which seems to be well filled with kelp, namely the bladder kelp where strong currents prevail and the bull kelp where there is less current but more wave motion, many of the thick fringes of bull kelp are twenty-five to fifty yards wide.

District "H" Queen Charlotte Islands. In this District conditions made it impossible to make more than a very cursory examination, but wide, thick fringes occur in many localities, and Cumshawa Inlet and Burnaby Channel show thick beds of bull kelp, which assuming that it has an average weight of fifteen pounds per plant, would yield annually more than a million tons of material. An accurate survey of these beds is very important, but such a survey would require the assistance of a man thoroughly acquainted with the coast.

Total Available Kelp and its Value.

The samples of kelp were subjected to thorough examination and analyses, and the details are given in

* The full report will appear in a Supplement to the Fisheries Report.—Ottawa, 1914-15.

the main report*; but if the total weight of kelp available in District "A" amounts to 123,760 tons, and in District "C" to 224,640 tons, the weight of potassium chloride which could be obtained in District "A" would amount to 2,946 tons, and in District "B" to 5391 tons. The weight of iodine would be respectively 11.78 tons and 21.56 tons. The total value of these two products in District "A" would be $192,947; (potassium chloride $147,300 and iodine $45.647), and in District "C" the total value is estimated at $353,095, (potassium chloride $269,550 and iodine $83,545.)

It is not possible to estimate the value in the case of District "B". If the whole coast line extends over 25,000 miles, then the total yield of potassium chloride per year would be 235,000 tons, of a value of $11,750,000 at $50 per ton, while the annual yield of iodine 950 tons, would be of a value of $3,680,000 at the rate of $3875 per ton, the total calculated value being thus over $15,000,000.

It must however be remembered that the present price of these two chemical products is much higher than calculated in these estimates, and is likely to remain much higher owing to the war. It may be questioned whether the kelp in Districts "A" and "D" could be harvested at a profit, but it would appear that the total average yield of potassium chloride and of iodine in District "C" could be utilized profitably. It would probably more than supply Canada's needs. The value of the Queen Charlotte Island beds must be more than $1,000,000 per annum if utilised at normal rates before the war, but the difficulties of utilisation would be great.

It may be added that the kelp beds of B. C. can supply more potassium and iodine than are at present used in Canada, but large quantities could be exported profitably at pre-war rates. In any case the industry properly conducted would almost certainly be lucrative. At least ten companies have organized or proposed in the U. S. to carry on kelp utilisation on the California and Washington Coasts, and it is stated that Congress proposes to construct an experimental plant on Puget Sound to demonstrate the commercial possibilities of potash manufacture from kelp.

WINTER FISHING

The Log of a Hard Luck Haddocking Trip.

Part 2.

By F. WILLIAM WALLACE.

(Photographs by the Author)

The weather looked threatening while we were lying at the wharf in Halifax and the Skipper thought it better to be lying to anchor out in the stream than banging against the dock, so it was all hands get into the dories and tow her out. With our eight dories and sixteen men laying to the oars we did some "Nova Scotia tow-boating" and hauled the schooner out to the lee of Georges Island and let go the anchor.

There was a suspicious looking black object floating on the water not far from us and some of the boys thought it might be a mine. "We'll soon find out", remarked one unconcerned humorist. "Just as soon as the tide turns we'll swing on top of it. I'll bring my stuff aft as the forecastle is liable to be the first place to go when she bumps it!" The "mine", however, was nothing but a mooring buoy.

JANUARY 7th, THURSDAY. On turning out this morning for breakfast at daylight we found it blowing a hard breeze from the S. W. A Custom's House launch came alongside and the officer asked us if we had entered the vessel. We had not as we did not think it necessary. However, the officer informed us that we would require to go to the Custom's House, enter and clear the vessel, and pay our pilotage dues as well. The Skipper and myself put a dory over and went ashore to comply with the regulations of the port. We went to the Custom House and filed out entry and clearance papers also a list of the crew. Before the clearance could be granted we had to go to the Harbour Master's Office and pay Harbour Dues. We also had to go to the Pilotage Commissioner and pay a pilotage fee of $1.50. Considering that we came in without a pilot and being a Canadian fishing vessel under 100 tons we considered this an unnecessary exaction. However, we spent the whole morning on this official business and the Skipper felt that he had a grudge against the Port of Halifax. "It doesn't pay a man to

run into Halifax if he has to go through all this work. Suppose I was fishing off here and wanted to get some ice or supplies. It wouldn't pay me to run in and spend half a day fixing up papers. I might lose a good day's fishing outside. No more Halifax for me."

In Yarmouth and Shelburne no such regulations interfere with the fishermen. The writer has run into these ports dozens of times — running in on a tide and coming out on the ebb —a matter of a few hours only.

JANUARY 9th, SATURDAY. We got underway at one this morning — the weather having kept us in Halifax since Wednesday. With a fine westerly blowing we glided down the harbour in the moonlight and passed through the searchlight zone of the forts. It was bitterly cold on deck and one had to keep moving in order to keep warm.

Outside Chebucto Head, the schooner rolled into the old sea of the past three days' breeze and she did some rare wallowing and tumbling about — sails slatting and booms fetching up on the sheets with tremendous jerks. It made a great sight to see that huge swell piling up under the silvery glow of the moon, but the cold of a mid-winter night does not make one desirous of loafing around on deck to admire the beauties of such occasions.

Steering E by N we rolled and tumbled along and before dawn brought the schooner to the wind about 10 or 12 miles off Jeddore, and put the dories over.

The sun arose clear into a sky of almost cloudless blue and we had the promise of a fine day. It was a fine day—sunny, cloudless, and with just a light westerly breeze and a smooth rolling swell, but it wasn't a fine day as far as fishing was concerned. One of the boys lost four tubs of gear — snarled up on a hard bottom — a loss of $28, which all hands would have to share up on. When the dories came aboard in the afternoon, we had but a miserable 6,000 pounds of mixed fish to show for the day's work. If the fish had only been striking good we should have got about 25,000 pounds upon such a fine day with the amount of gear we set. The poor result convinced the Skipper that there was no good fishing to be got to the eastward, and after dressing down the fish, we trimmed our sheets and steered S.W. by W. down the coast.

The sun went down smoky and the sky became overcast while it began to breeze up from the N.E. Winter weather never remains fine too long.

"Storming along with sheets off."

JANUARY 10th, SUNDAY.—It was our watch at 2.45 a.m., and on turning out found the vessel tearing along with sheets off to a bitter N.E. breeze. There was just a hint of moonlight, but no stars were showing, and everything had the appearance of bad weather or a heavy breeze again. It was a cold trick at the wheel and hard steering—the vessel running before the wind. In the squall-like puffs one had to be careful, and watch the main-boom for a jibe. If that huge 65 foot spar took a notion to come over of a sudden, it would be "Good-bye masts!" My watchmate and myself took the wheel in fifteen minute spells and spent the intervals tramping the waist to keep warm—with a glance ahead every now and again.

Our watch was up at 4 a.m., but the wind had breezed considerably, and when we called the relief,

we all had to turn to and stow the tubs of trawl gear down in the hold and make things ship-shape for a blow. When this work was finished, it was after five and cook's whistle blew for breakfast.

The wind was hauling around to the S.W., and the dawn came cloudy, but clear. There was no prospects of a day's fishing, so the skipper decided to run into Shelburne for a harbor. Trimming in our sheets we made a fine run in and let go the anchor behind Sand Point. Other vessels in for harbor were the American schooners "Governor Foss," "Fannie A. Prescott," "Muriel," and the Digby schooner "Quickstep." All report poor fishing.

While at Sand Point, the United States Revenue Cutter "Androscoggin"—on duty as a Fisherman's Hospital Ship—came in and anchored. She is doing splendid work, and those responsible for her commission should be given every credit. While in Shelburne her doctor attended to some men aboard the American schooners. One of our boys was laid up with an abcess in the ear, but we had secured the services of a Shelburne doctor before the hospital ship came in—otherwise they would have attended us without distinction for flag or nationality.

Our watch ended at 4.25 a.m. and we scurried down for'ard and had a great "Mug-up" of hot coffee and buttered toast with a topping-off of lemon pie and doughnuts. After that and a draw at the pipe, one soon forgot the cold, and kicking off boots and oilskins rolled into a bunk and slept serenely in an atmosphere highly charged with coal gas and bilge. That coal gas was a great thing to make one sleep. With the cabin slides drawn and all outside air excluded; the base-burner stove crammed with coal and glowing red hot, the coal gas filled the small 10 by 8 apartment, and eight men inhaled this delightful air. Just when one was half asphyxiated and passing into the sleep that knows no waking, the watch would come down for a "warm up." Coughing and almost stifled with the gas, they would open the slides and sky-light, and incidentally save eight lives. When it wasn't coal gas, it was bilge, but happily the Lutz" was all reballasted and did not "stink" badly when the bilge got churned up. The writer has been on some craft when the lamps would hardly burn in the bilge reek and the paint would be blackened with it. Sulphuretted hydrogen has nothing on bilge water for odor.

Off to make the set in the dory.

After a visit aboard the "Quickstep," and a yarn with her gang, we went aboard the "Lutz" again, and at 10 p.m. got under way, and out to sea.

JANUARY 11th, MONDAY.—Our watch was called at 3 a.m. Fine clear night, moon and stars, but desperately cold. All the clothes in the world would never keep one warm at the wheel that trick. The oilskins froze as stiff as sheet iron and one could hardly move in them. Ten minutes was long enough to the wheel that night. Fingers and toes soon got numbed with the frost, and we spelled one another "Ten minutes to the wheel and ten minutes thawing out at the cabin stove!"

Steering to the east'ard the schooner ambled along to a light breeze and rolled in the usual old sea—aftermath of yesterday's breeze. That's the worst of winter fishing. We run into harbor when the sea is making up and come out again to wallow around in big swells with light winds. Just as soon as the swell eases off, another breeze pipes up, and we are forced to scoot for a harbor again.

We put the dories over for a set about 10 miles off Little Hope Light. It was another lovely day, and there were twelve vessels fishing all around us in 50 to 55 fathoms, but like the last set we made, we had to report "Nothing doing!" Six thousand pounds of mixed fish—haddock, cod, hake, pollock, cusk and a few small halibut represented a day's work for eight dories and six tubs apiece on these grounds. "Little Hope!" remarked one of the boys. "It's dam' well named!"

The Skipper decided that there was no fishing worth while along the shore. "We'll get away from here," he said, "and down to Brown's Bank. Perhaps we'll strike the fish there."

JANUARY 12th, TUESDAY.—Our watch was called at 11.30 p.m. and we stood it until 12.45 a.m. this morning. It is very cold, and a fresh breeze is blowing, but it is one of the finest nights we've had so far. The moon is up and the sky is stars from horizon to zenith. The schooner, under four lowers, is laying her course by the wind and steers easily. For ten

minutes she'll drive with the course on the lubber's mark, and one has but to give her a spoke of the wheel now and again to keep her steady. These fine windy nights at sea are experiences worth while, and there is a fine sense of exhilaration to be at the wheel of a vessel when she is storming along through the water. It is pleasanter in summer time, however, as the bitter cold of the winter months take away the enjoyment. When one's fingers and toes are nipped with the frost, and the eyes are watering with sleep and staring into the binnacle———Br-r-rr! You stamp your feet; beat your mittened hands together, and rub your frozen eyelashes clear. "What time is it?" you growl to your watch-mate silently smoking his pipe and tramping the lee quarter. "Watch'll be up in twenty minutes!" he replies, and you keep silent for another interminable five minutes. After flogging the clock the whole watch, it comes to an end at last, and you nip down into the forecastle for a mug-up of hot tea and forget all about the cold.

At the end of our watch, Cape Sable and Roseway Lights were flashing just below the horizon on our starboard quarter, and the schooner was slugging along bound offshore for Brown's Bank.

"Under the silvery glow of the moon."

The dawn came with a rosy flush to the eastward—too rosy for the prospects of good weather. The terraced clouds changed from black grey to pearl and pink, then a sanguinary red. The sun came up a fiery ball and the sky radiated flame. The oil-skinned gang watched the wild colors of the sunrise and expressed no delight at the sight. "Look's like blazing Hades!" remarked some one. "We'll probably get it afore long!" said another.

The Skipper hauled the log and read the distance run. "Weather up your jumbo and take a sound!" he cried, and the schooner was brought to the wind and lay dipping and curtseying on a long swell. The lead showed up a black gravel bottom and we figured we had made the northeastern edge of Brown's Bank. The dories were swung out and by 9 a.m. all the gang were out on the sea setting their gear tub and tub.

During the day the wind dropped, and a heavy swell came piling up from the S.E. The sky was overcast, and heavy with ominous portent, but the boys were striking fish. "That's always the way," remarked the Skipper. "Just when we strike fish and have a chance to get a trip, the weather changes and crowds you out. We're going to get a breeze sure—a hard easterly most likely, and it's liable to last a week."

We watched the barometer all day and it was going down very slowly. At 5 p.m. when the dories came alongside it was on 29.8 (high rated glass) and the wind was coming from the S.E. With 10,000 pounds of fish on deck, we turned to and dressed down by the light of kerosene torches. When the last fish was stowed away in the hold, all hands furled the mainsail and triced up the jib. Under foresail and jumbo we hove-to on the starboard tack. "No fishing for some days now I'm afraid," said the Skipper. "I'd like to have got into a harbor somewhere, but don't care to get caught in a breeze while trying for shelter. The Nova Scotia coast isn't a good place to have under the lee on a winter's night, thick of snow and blowing hard, so I cal'late we'll stay where we are."

We seem to be on fairly good fishing out here on Brown's Bank—the best so far—and it seemed hard that our chances for getting a trip were being thwarted by bad weather. The vessel was now twelve days out, and we had but a scant twenty-two or three thousand pounds of fish below—scarcely enough to pay for the store bill.

JANUARY 13th, WEDNESDAY.—It was our watch from 1.30 a.m. to 3 a.m., and we came on deck to find it breezing up from the eastward and raining hard. The vessel was lying-to under foresail and jumbo, with the wheel lashed hard down. Amidships, in one of the dories, a torch was burning, and sky and sea were black dark. There was some kick to the sea now, and the vessel was lurching and diving. 2.30 a.m. Wind coming away in savage squalls from E.S.E. with rain and sleet. Stowed gear away and lashed all movable articles. Barometer going down steadily 29.4 on the last reading. Every promise of a wild breeze.

When we left the deck at 3 a.m. the wind was hauling to the north and becoming stronger and colder. My bunk-mate and I had a mug-up and turned in. "It's going to blow old hell before morning", he said, "but we should worry, eh?" I agreed with him about the worrying and enjoyed a see-saw slumber in which both of us (we had a double bunk) rolled down upon each other when the vessel wallowed in the seaway. When the cook sung out the breakfast, there was no mistake about the breeze then. One could hear the howl of it and the way the vessel rolled, pitched and flung herself about was a terror. It was all one could do to stand on one's feet.

We scrambled for'ard to the forecastle for breakfast —oiled up and sea-booted — and the passage had to be made by hanging on to the gear. There was some heft to the wind and the sea was piling up in tremendous foam capped undulations over, which the schooner did some hair raising diving and climbing.

Jerry, the steward, was on the job, however, and he had a good breakfast prepared in spite of the difficulty he had in standing around his stove. "Never saw the breeze yet that I couldn't cook", he said. "I've put meals on the table when there was no gang to eat them and I've seen times when the vessel would pitch the plates and the grub right into the shelves in the lower bunks." Our craft was in a fair way to trying that now and to make her lie easier we took the jumbo in and tied it up leaving the vessel under her foresail only.

By 9 a.m. the wind had increased and squalls of blinding sleet obscured the sea. We were on 55 fathoms on the eastern edge of the Bank and the chop was something savage. At 10 a.m. the wind was simply howling and tearing off the crests of the waves and

hurling them through the air. The vessel was lying on the starboard tack and the Skipper thought it advisable to get her on the other tack and let her drive over towards the middle of the Bank. He and another of the boys tied a bowline around their waists and took the wheel — another man tended the foresheet. Giving her a good full, the schooner gathered headway and tore through the water with her lee rail under. "Now!" cried the Skipper. "Put the wheel down on her!" And the two of them strained at the spokes. She came swinging to the wind: the foresail shivered and then she fell off again. Three times they tried to tack her but the sea would knock her off.

"We'll jibe her!" said the Skipper to his assistant at the wheel. 'Go for'ard and help your dory-mate with the fore-sheet. Hook in the jibing tackle and watch yourself in case she ships a sea". I was standing in the cabin gangway oiled up and I do not think I'll ever forget the sight of that sea when the schooner swung off before the wind. It was simply tremendous! The vessel appeared like a mere chip in the awful heave and swing of it and as we squared off before it, their foaming crests towered above the taffrail and came on deck and gathered in the waist and between the dories. The air was full of sleet and sheets of salt water and nobody could look to windward. The wind caught me as I was going from the gurry kid to the mainmast and I was lifted clean off my feet and hove into the fife-rail.

The foresail halliards were settled away and with the gaff jammed up against the lee fore-rigging it took four of us on the peak downhaul to drag it down. While reefing the sail, the wind increased to squalls of hurricane force and the sea was almost flattened with it. Air and water seemed to have blended into one. "Never mind hoisting that sail!" bawled the Skipper. "We'll lose it. I'll try her under bare poles until this squall lets up!" The sail was securely tied up and those of us standing by to give a hand, if necessary, took to the rigging. Sometimes a big comber threatened to pile aboard, and we would start to climb. Some scientist said that ocean waves never attained a height of over twenty-five feet from trough to crest. If he had been on fifty-five fathoms on the edge of a Bank with the wind blowing eighty miles an hour, he would have seen waves almost double that height. I was

Tricing up the jib.

threatened to overwhelm the schooner. The Skipper was watching sea and vessel calmly and grasping the spokes of the wheel in an iron grasp. "Now, boys, stand by for a jibe!" he roared as he hauled the spokes over. Crash! a big sea toppled over the stern and knocked him down. He was on his feet in a second and yanking the wheel over. "Watch out when she comes to!" he shouted to the two at the fore-sheet. The boom gave a slat at the sheet and flew over with a shock which made the vessel tremble in every plank and the schooner drove through a solid wall of sea and burst it into clouds of spray. The sail was sheeted well in, the wheel lashed and the vessel now laid-to on the port tack.

At 10.30 we were either lying in our bunks or on the cabin floor. Nobody could stand up. The barometer was down to 29.1, and the watch standing half in and half out of the cabin gangway reported that the wind was coming away stronger still. "All out and reef the fores'l!" cried the Skipper and the word was passed down to the for'ard crowd. All the gang astride of the main-gaff and I went up the throat halliards a good many feet when I caught sight of some of those threatening seas. Some of the boys were fifty feet up the main-rigging.

Under bare poles and with the wheel securely lashed, we went down into the forecastle for dinner at 11 a.m. In spite of the turmoil and the desperate pitching and tumbling, Jerry actually had a dinner prepared. If any man deserved a Victoria Cross or an Iron Cross, it was Jerry Boudreau. I believe he would have the meals ready if the vessel were upside down.

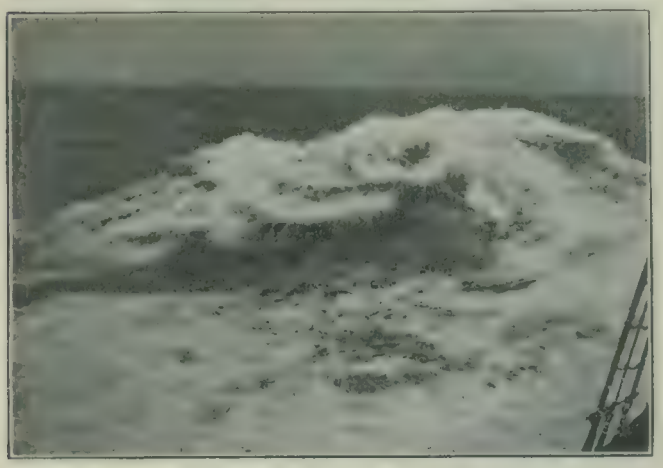
She was shipping some water now, but nothing really heavy. The dories were working loose in their chocks and gripes and the jib, triced up and in stops, had broken adrift and was beginning to flap to ribbons. "Let's try and save that jib and lash those dories," suggested the Skipper. Two or three of the boys jumped up on deck to tackle this rather dangerous job. The jib was lowered down on to the bowsprit and the men went out over the bows. Several times they went under, but by dint of almost superhuman exertion they

lashed the jib to the bowsprit. The dories were then double-griped and chocked.

The sleet was flying through the air horizontally, and wherever it stuck it froze. The flying spray drenched the vessel and gear, and everything was filmed in ice. One had to be very careful on deck now, as being under bare poles and drifting broadside in the sea, the vessel had no command over herself and seas piled aboard every now and again. The baromter went down to 29 and started pumping as in a West Indies hurricane—this would be equivalent to 28.6 in an ordinary glass.

At noon it was blowing a veritable hurricane. The sea was something terrible to look at and livid white with foam. Sky and horizon were blotted out with sleet and flying spray. Big combers were piling aboard now, and it was dangerous to remain on deck. "Better come below," said the Skipper to the man on watch. "No use freezing up there. You can't do anything. We couldn't get out of any vessel's way. We'll trust to luck that there's no other craft hereabouts."

With the slides drawn fore and aft and all hands below lying in their bunks or on the floors we waited for a let-up in the gale. On deck, the seas were piling aboard with heavy jarring shocks and the schooner was



The Sea was livid with foam.

doing some of the most awful rearing and pitching I ever experienced. Did the gang worry? Not a bit of it! They lay in their bunks smoking and yarning or listening to one of their number reading the war news. "How would you like to be in them blame' trenches now?" said one. "Golly! It must be tough!" It seemed to me that most of the soldiers in the trenches would sooner be there than aboard of a small 90-ton schooner drifting helpless on the Atlantic in a January blizzard.

"Jest look at this blame' barometer! Did ye ever see it jumping like that afore?" The glass was certainly behaving in a peculiar manner—the needle oscillating on the 29 in rapid jerks. "Only seen that down in the West Indies once in a hurricane," remarked a man, and the conversation turned to gales of wind and experiences at sea in winter breezes. "Well, I'd sooner be aboard a vessel like this in a blow than on one of them tramp steamers," said someone. "We're safe enough s'long's nothing's driving 'cross this here Bank. Play us a toon on that mandolin o' yours, Fred." I tried to oblige, and, wedged in my bunk, endeavored to render "Tipperary," but the jumping and pitching was too much, and the music (?) had to be postponed until smoother seas.

For four and a half hours we drifted under bare poles. At 3 p.m. the wind eased off a little, and the barometer went up a point. "She'll let up now," said the Skipper. "Get the reefed foresail on her!" We turned out to obey the comamnd and found the gear in a beautiful mess. The decks were pretty well swept. The gurry kid covers had been washed overboard; a number of the pen boards were gone, in addition to draw-buckets, trawl kegs, brooms, pews and miscellaneous gear stowed in the kid and in the top dories. Dory sails lashed in the main-rigging were torn to ribbons; the patent log which was put over to register our drift had vanished, and most remarkable of all — several strips of copper nailed on the rail to prevent chafing had been torn clean off by the sea, also a ten-foot strip of moulding had been wrenched away from the inside of our quarter rail. The halliards had been washed off the pins and were trailing overboard, and the furled up sails were encased in frozen sleet.

We got the foresail pounded clear and hoisted, then proceeded to clear up and lash the remaining deck gear. Hove-to on the starboard tack we rode out the rest of the day under the reefed foresail. With the side-lights in the brackets—it took half an hour to get them in the cases—a riding light in the main-rigging and a big storm torch flaring in a starboard dory and throwing it's glare against the foresail, we lay hove-to, pitching and rolling throughout the night with the wind blowing a gale from the N.N.E. with snow squalls at intervals. The darkness was solid, as the inside of a tar-pot and the blackness was only relieved by the livid whiteness of the foam-capped waves, which seemed to rush at the vessel with a threatening hissing and roaring. No gull ever rode the combers as lightly as did the "Lutz," however, and she side-stepped and mounted those dangerous greybacks as easily as a cork.

The only ones who suffered were ourselves. The infernal pitching and jolting told on our bodies, and we lay and cursed the vessel and her antics with aching muscles and bones. It was all right for the fat men, but for the lean rangy kind like myself it seemed as if our shoulder-blades had chafed clean through the skin.

JANUARY 14th, THURSDAY.—The wind began to moderate after midnight, and the sky began to clear overhead. The stars began to blink through the flying scud with all the glitter of a frosty winter's night. The sea was still running high, but the savage crests were gone. At ten in the morning it was sunny and clear with a blue sky and a strong breeze. Under riding sail, reefed foresail and jumbo we swung the vessel off N.W. for Yarmouth. At noon the breeze eased off enough to permit us to set the reefed mainsail, whole foresail and jumbo and under this canvas we wallowed and plunged in the big swells heading northward for Seal Island. We had no log, but the Skipper kept track of the vessel's drift in his head and figured out that he was heading for Seal Island alright. At 9 p.m. the watch reported a light off the starboard bow about 12 miles distant. It was Seal Island. Considering that we had drifted about considerably in the blizzard with wind and tide and had taken no observations and had no log to check up our distance run, the making of Seal Island light was pretty good fisherman's navigation. At midnight the wind fell light, and we rolled lazily over a big swell.

JANUARY 15th, FRIDAY.—Very little wind at sunrise this morning. Fine day—clear and sunny, but bitterly cold. With the sun came a little more wind, and we passed in by Cape Forchu at 10 a.m. At eleven o'clock we swung up the harbor and tied up alongside of the "Loran B. Snow" at the Consumer's Wharf.

When we got ashore and read the papers we got a better idea of the breeze we had taken out on Brown's. The northeast blizzard was responsible for an immense amount of damage along the Nova Scotian and New England coasts. Schooners and boats had been driven ashore; vessels had come in with sails blown away and dories gone, and houses and trees had been blown down in the coast towns. A big steamer, the "Manchester Merchant," was quite close to us on Brown's and had broken her rudder. The Halifax Herald said that, "she encountered terrific weather when south of Cape Sable and heavy seas broke over the vessel's decks, freezing solid and leaving the ship's upper works heavily encased. The pounding tons of water caused great difficulty in steering the vessel, and the rudder quadrant was broken, leaving the vessel helpless and drifting in the trough of the seas. She was driven along broadside until temporary repairs were effected. During this time great anxiety was felt by the officers and crew. Tons of ice formed on the after part of the ship, the snow was blinding and the wind was intensely cold." When I read this, I remembered the remark of one of our boys: "Sooner be aboard a vessel like this than on one of them tramp steamers!"

As I said before, when penning this little account, it is not written for fishermen. They know all about these things. It is part of their work, but it is just as well that other members of the fishing industry should know just what our fishermen are up against in the winter months. The season has been a hard one for the fishermen haddocking out of Nova Scotia and they have made but very little money. On our trip we were fifteen days out, lost a lot of gear, and had but a mere 22,000 pounds of fish to show for all the trip. Do fishermen earn their money? I will leave the reader to judge.

Our fishermen are fine fellows, kindly, intelligent and good citizens. They follow a vocation which calls for nerve, hardiness and endurance. They do not howl for help from the Government in their business, as do so many engaged in other home industries. Men who work as the fishermen do, should be encouraged. They do not ask for grants or bounties, but they want larger markets for their fish. If every Canadian would eat fish at least three times a week the fishermen would benefit by it, and the losses they have in bad weather would be made up when fish are plentiful by the steady demand and the good prices. As it is at present, good prices only prevail when fish is scarce, when it is plentiful, the dealers have a hard job to take care of all the stock offered, and they cannot afford to pay high.

With a larger home market for fresh fish and a demand that will take all that is offered in fair weather and foul, the fishermen will reap the benefit—in fact, all the industry will benefit. Getting down to brass tacks it is up to the Canadian Government to advertise fish as food. The dealers can't afford to do it themselves; neither can the fishermen. Get the public eating fish and the fishermen will find it worth while remaining in business. The half-hearted demand of the present day must be stimulated, and the legislators of Canada should see to it that enough money is voted for the purpose of creating the demand. If any of them feel that the fishermen do not deserve it, let them ship aboard of a fishing vessel in winter-time and go through the common experiences of the winter trawlers. They will come back with new ideas and a kindlier appreciation of the hardy fellows who risk so much in the harvest of the sea.

SHARKS AND DOGFISH RUINING THE ATLANTIC COAST FISHERIES

By CHARLES ELLERY DAVIS.

In the United States, it is indeed sad to contemplate the great indifference of those not in power, and the hostility of the theorists holding high office; to the practical conservation of the American Sea and Shore Fisheries.

One thing has been demonstrated in Washington, and that is, that the Bureaus and theorists are supreme, and have been, since the year 1903, a period of nearly twelve years.

Of course it is absolutely impossible to present in a short article like this all the facts—or to enumerate all the sacrifices which have been made in the fruitless endeavor: to write the words—"practical conservation of our national sea food supply and reserve"; into our national laws. The nearest Congress ever got to that, was when Senator Johnson of Maine, introduced into Congress the Davis-Johnson bill No. 1868 Senate, bearing the date of May 9th, 1913, with the aforesaid desired form of conservation printed across its face

Four House Bills—providing adequate practical conservation of our fisheries like this Senate Bill No. 1868 have also died in Committee since 1903. In former years there was no psalms sung, but last year the Bureaus did a little better, as the Davis-Johnson bill, the Donovon House Bill (copied from the Davis-Tirrell Bill, 1904), and the Hines Bill, also practically a copy, were highly honored in an "adverse report" No. 780.

Since there is nothing left to do but to quit, or keep on drafting new Bills, I have decided on the latter course. Quite recently I have amended the Davis-Johnson Bill, and sent a copy of it to Senator Johnson and Congressmen McGillicudy of Maine for introduction in the House and Senate.

The amended Bill meets one criticism (of this "adverse report" No. 780) made upon the cost of a ton of dogfish fertilizer when sold direct from the proposed federal dogfish reduction works, to the American farmers at gross cost of production. The amended bill turns

the power of price making, over to the Bureau of Agriculture and this settles that objection. In the former Bill No. 1868, Senate, the farmers and planters were to have the entire product of these reduction works, but in the said amended bill the fertilizer manufacturers may now also purchase the said dogfish fertilizer at the same price as the farmers.

No bounty on dogfish or other sharks, is called for in this bill, but these are to be purchased at 40c the hundred weight. As to the number of said works there ought to be from 25 to 100 of them, built and operated, since the fisheries are so near their final finish that not less than 25 of them should be built on the Atlantic Coast, and operated before it is too late.

Mackerel, herring and lobsters are going first. Of course, these surface fish decreased because the fast increasing dogfish and other sharks could surround these species easiest; and again the crawling lobsters on the bottom are easy prey for dogfish, skates, and other fish of the shark species. As these pest have multiplied, so the food have disappeared, never to come again. Does official Washington care? None of the Bureaus seem to be worrying, and no one seems to be worrying them sufficiently to bring about the desired change of policy.

President Wilson was the first American President to state that a practical conservation bill, like the Davis-Johnson bill, would receive consideration if it could be placed before him officially. It appears now that the House and Senate fisheries committees are unwilling to have such a bill placed before the President in this way; i.e., officially, for his official consideration.

All that is needed now is the money. For pork there has always been money enough, during the last 50 years at least, if we care to believe the newspapers. If fish had been as lucky as pork in the matter of appropriations, one hundred dogfish-shark reduction works might have been built, and operated long ago on the Atlantic Coast.

Congress seems to think, that fish and lobster hatcheries are cheap, and therefore the most desirable form of conservation, without taking efficiency into consideration.

I am quite sure that this body of law makers would abolish all artificial attempts to multiply the fish and lobsters in the sea, if Congress men would but read the U. S. fisheries reports from 1903 to date; carefully and critically.

There is quite a difference between the efficiency of lobster hatcheries and chicken incubators; but on the other hand there seems to be but little difference existing in the minds of our lawmakers; if there was, then the lobster hatcheries would be eliminated and the reduction works built.

Those who favor the lobster and fish hatcheries most, say "if only 5 or 10 per cent of artificially hatched lobsters survive to be legal lobsters, that this per cent will re-stock the sea. Professor Herrick, the great American authority on the lobster, says that the survival of 1 artificially hatched lobster in 15,000 is a fair estimate. (See Bureau of Fisheries Report.) This is not much like the estimate of 5 or 10 per cent.

A lobster and fish warden once said to me "if a chicken incubator is a better chicken hatcher than a hen, then why is not a lobster hatchery a better lobster hatcher than the mother lobster?

The answer is that if the artificially hatched chickens were turned loose in the woods before they could fly up to roost in the trees, then the foxes and skunks would feast most royally upon the chicks.

In the case of turning loose the mosquito-sized little lobsters, they also become a prey to the myriad of cunners, harbor pollock, and in fact of every fish that swims, and when larger grown—to "short lobster" sizes, then the skates, dogfish and other sharks devour them; if too large to swallow, then they bite off both the large and small claws of the "counters."

With these facts in view the theorists are now in line for lobster farming; even now they are advocating te fourth molt, or half-inch lengths, for throwing overboard. The next logical step of course, will be keeping on and keeping on, and ever on, until the lobster is actually, and legally, ready for the table. This is a rational step when we consider the fact that a single cunner entering a hatching bag devoured 2,500 lobsterlings in one night (see Bureau of Fisheries Report 1903).

Lobster farming will never give us lobsters at the rate of 2 for 5 cents—not the legal kind, at least. Perhaps 2 for 5 dollars would be nearer the mark.

A Bill from the Boothbay section has been recently introduced into the Maine Legislature, calling for the abolition of the Department of the Sea and Shore Fisheries. At present this move is not being taken seriously. Inquiry, however, dicloses the fact, that the very ablest critics from the practical standpoint, are now strongly in favor of the abolition of most, if not all fishing laws, and the passage of adequate fishing measures, which will provide practical conservation of the lobster, the valuable mackerel, herring, etc; three of the chief foods of the dogfish and other sharks of the Atlantic coast.

Our thinking men are beginning to ask why it is that the fishermen are fined one dollar each for catching "short lobsters" and these sharks meanwhile being fed royally, are by the refusal of adequate legislation providing a dogfish bounty—or purchase, and a string of coastwise reduction works.

Perhaps this explains why the abolition of Maine's fishing laws is being agitated at this time, in favor of removing the sharks, which are finishing our fisheries. It is perfecetly plain that just as long as the fishermen are considered the chief offenders the sharks will revel in gastronomical delight. The costly Bureau of Fisheries Report No. 622, 1907, proves by the dissection of 388 dogfish that these and other sharks are to blame, and not the fishermen, for the destruction of our fisheries. This is also backed up by the costly Massachusetts Dogfish Report of 1905 (Dr. Field, Commissioner) and his later 1913 Report in which document I am duly credited with having been the first person, who brought this subject (the elimination of the dogfish from our fisheries) to Congress; in the following words: "The first public recognition of the seriousness of the dogfish problem, was obtained through the efforts of C. E. Davis now of Portland Me., then of Orr's Island, who secured the attention of the late Congressman C. O. Tirrell, who in 1904 introduced a bill in Congress which later was accorded a hearing by the committee on merchant marine and fisheries."

In conclusion, I beg leave to add, that I have secured the co-operation of the State Department of the Sea and Shore Fisheries in urging before the Legislative Committee on Fisheries, that the dogfish be destroyed by a State Bounty of 2 cents. If the farmers and fertilizer manufacturers, however, insist on having dog fish reduction works built to turn the dogfish into fertilizer, I shall in that case submit another bill providing for these works, and also the purchase of dogfish, skates, and other sharks, which are destroying (even on a minimum estimate) over $100 in sea food values

annually, as deduced from both the State and federal reports; this estimate made on fish market prices.

The bounty on dogfish is to be 2 cents each (on tail sections) the same also for skates and other said sharks (in the first bill). The "purchase price" in bill No. 2 is to be 40 cents per hundred weight.

The sentiment seems to be growing in Maine for starting in at once to turn out these sharks, therefore it is expected that our Legislature will do something on these practical lines. I have recently had a primary conference with Governor of Maine in relation to the welfare of this State's salt water fisheries on the lines laid down in this article.

To those that do not appreciate the tremendous importance of the dogfish reduction works, I would say that it has already been proven that the works, the fishermen, and the money, will clean up the dogfish-shark "pest" and so save both the Canadian and American fisheries; and this ought to be reason enough.

What Can Be Done To Protect Our Fisheries

By CAPT. J. A. FARQUHAR

This is a question of the Government, and in fact the people of Canada, hae been considering for some time. Many suggestions have been made and large sums of money have been spent in establishing fish hatcheries and in building and in equipping reduction plants. It was thought that if reduction plants were built at different points on the Coast and our fishermen were paid a moderate price for dogfish, that the dogfish pest would in a measure be relieved, but after several years experiment the situation is about the same, that is so far as the dogfish are concerned. Just how to deal with this pest seems to be a difficult problem. There is no doubt that fish hatcheries are doing good work and are a good asset, but what we want to know is how to protect these fish after they have been set free in our waters. Of course it is not only our river fish such as salmon and trout that we must protect, there are cod, mackerel, herring, lobsters, halibut, shad, etc. The cod is easily king so far as quantity and value is concerned and gives employment to many thousands of people, and everything that can be done to protect the fisheries would be a move in the right direction and would be hailed with delight. A great deal has been said about poaching which of course should not be permitted, but to my mind it is a mere bagatelle compared with my friend the seal. The seal is a great gormondizer and is the common enemy to almost all fish. They are particularly fond of cod, haddock, halibut, mackerel, herring, salmon, trout, shad, etc. You will be surprised when I tell you that at Sable Island, which lies practically in the centre of the fishing zone, there are not less than thirty thousand seals. It has proved a most ideal spot and nursery where they can bask on the sand bars with little fear of being disturbed. Then again there are seals scattered along the whole Coast of New Brunswick, Nova Scotia, and Quebec. I should say twelve thousand would be a low estimate. They are found in all the bays and harbours and particularly at the mouth of rivers during salmon and trout season and have been known to help themselves by taking fish from the fishermen's nets. We will now suppose a seal will eat and destroy not less than twenty pounds of fish per day, and the total number of seals at Sable Island and around the Coasts of the Maritime Provinces is forty-two thousand, and each seal eats and destroys twenty pounds of fish per day, that would be three hundred and six million, six hundred thousand pounds per year. Now if we put the price of fish at two cents per pound, which of course would be a very reasonable figure when we consider the price of green fish paid today, and when we consider that salmon and some of the other fish are worth a great deal more, yet at this low figure of two cents we have the enormous value of six millions one hundred and thirty-two thousand dollars worth of fish eaten and destroyed every year at our very door by the seal, who is practically of no commercial value for the simple reason, the seal I refer to cannot be taken in sufficient numbers to pay expenses. There are many varieties of seal. The seal I am speaking of is not migratory, they are content to remain around our shores all the year around, and at no one point are they found in any large numbers except at Sable Island, and there thousands can be seen sleeping on the sand bars almost any day. The seals at Sable Island and those around our coast are mostly of the variety known as the common harbor seal. They have their young on the sandy beaches of the Island and on the outlying ledges off the coast. They are ever on the alert and rush into the water at the first sign of danger. The seals taken by the sealing fleet during March and April off the Coast of Newfoundland and in the Gulf of St. Lawrence are of an entirely different specie. There are two kinds commonly known as the "Hoods" and "Harps". They are both migratory and only come to our shores for a short time during the whelping season, and are found on the ice in immense numbers. They are easily taken when the ships reach the whelping ice before the young have taken to the water which is usually about the end of March. Our neighbours to the South of us are alive to the fact that the Seals that remain around their Coast during the whole season are most destructive to the fisheries, and have adopted the only safe and wise plan of killing them off by paying a bounty for all Seals tails brought to the County Treasurer, just in the same way that our Government pays a bounty for all bears and wild cats killed, because they are found to be destructive to the farmers flocks. In the State of Massachusetts as much as three dollars is paid for each Seals tail. The result is there are now few seals found south of the boundary line. Now, if I am right and there are forty-two thousand seals around the Maritime Provinces, which are practically of no commercial value, and these seals destroy every year more than six millions of dollars worth of our best fish, would it not be money well spent if three dollars were paid for each and every Seal killed. If it is possible that $2.00 may be sufficient inducement for a year or two, and later when the Seals become less plentiful a higher bounty could then be paid. If the forty-two thousand Seals were killed off at a cost of eighty-four thousand dollars, or two dollars each, that would be a very small figure when compared with the enormous value destroyed every year by the Seals, and this money would have been distributed among the fishermen principally from one end of the Maritime Province to the other. Think this over seriously and see what can be done.

The Hawkesbury Fish Co., Hawkesbury, N.S., plan to operate on a larger scale this year.

AMONG THE TUSKET LOBSTERMEN

By R. P. GETTY.

Important among the lobster grounds of the Dominion are those waters surrounding the Tusket archipelago, a picturesque group of small islands which lie off the western shores of Nova Scotia, and only two or three score miles distant from its terminus at Cape Sable Island. And at these lobster grounds, as elsewhere among the fisheries of the Atlantic coast, the necessities of the industry require that the lobstermen like Mahomet must go to the mountain. In other words during the open season from December fourteenth to May thirty-first they must sojourn where the lobsters abound if they wish to catch their share. The rest of the year is their own. They may reside at home in the villages of the mainland, or wherever else it happens to be. Ordinarily fishermen do not seem to mind the exile, or the privations in shelter and food required for a few months of work. This is the penalty of being a fisherman and he is content to pay the price. But the strange thing about the Tusket Islands is the fast that there are always several hundred persons who are willing to make them a permanent abode, and live in such rude surroundings as to the stranger at least seem most discouraging and distressing. Things there are too primitive altogether for any prolonged stay. The islands are too devoid of all comforts and conveniences, of the real home which form such an attractive feature of the little settlements further up on the Bay of Fundy, or along the southern shores of Nova Scotia. There are probably three hundred and fifty of the Tusket islands, although the natives claim three hundred and sixty five, or one for every day in the year. And of the entire lot less than a score have habitations or buildings of any kind. And by far the most important is Deep Cove Island. Here it is that the steamer from Yarmouth stops with supplies and mail, and being the capital of the group, it boasts of having the insular postoffice.

Deep Cove is probably twenty acres in extent, and is entirely barren of trees, all of them having been cleared off years ago for their lumber or for firewood. This lack of forest growth however is more than made up by the great number of bowlders which cover nearly every foot of the land. It is a rocky island if there ever was one. And so literally is the land one collection of bowlders and jutting outcrops that you cannot walk around the island without clambering over them every two or three steps of the way.

Crops in this barren soil cannot flourish even to the extent of a few graden vegetables for table use. The only fresh water obtainable is taken from public wells which have been driven deep down through the rocky strata.

Deep Cove possesses two or three shops which cater in a rude way to the wants of the inhabitants. They supply them with the flour and other staples which are so absolutely necessary for life, and in one of these shops the postoffice is located.

Modern type of fishing and lobst ering motor craft, Tusket Islands.

Clustered around it on a pebbly beach or on the sloping hillside behind it are the homes of the inhabitants.

These tiny dwelling places are only one storey cabins or shacks, the largest not being more than ten feet square. On entering one of them a room is discovered occupying half of the dwelling with two little windows stuck in the sides to let in the light. The furniture amounts to nothing. A cooking stove with a black iron pipe stretching out through the roof, a table, and two or three chairs make a complete inventory. Tin pans and kitchen utensils hang from nails on the walls. The floor was bare. In the rear are the sleeping quarters, one for the lobsterman and his wife, the other for their children. And it must often become quite a mathematical problem to figure out how to put a family of six or seven children in a space that would not comfortably accomodate more than two.

The manner of living on the Tuskets is just as rude. Food is always what the natives happen to have the handiest. Fish, of course, all the time, helped out by the few extra things that can be purchased in the shops. Vegetables except the canned ones are not available except in the summer time when some itinerant peddler brings over a few from the mainland. There are no cows, so no fresh milk, and the natives rely on the shops to supply the condensed or evaporated kind when they wish this useful commodity.

There are no churches on the islands, no doctors, no telegraph system. A telephone does give some communication with the outside world when it is in running order. The only school meets in a room in a shack where a teacher imported from some village of the mainland endeavors for a few weeks to teach the children of the islands a few rudiments of education. There are no horses on the islands, though we did notice a few ducks and chickens, a pig or two and of course the omnipresent dog and cat.

Comparing now the methods which the natives have of carrying on their lobster pursuit with their way of living the contrast is great.

The lobstermen have good boats. The power boat here as elsewhere has instilled new life in the pursuit, and the pride in the modern craft is so keen that most of them are nattily painted and kept up to date. The engines are looked out for, and contrivances like the magneto and an electric lighting system are found. Most of these boats do not exceed fifteen or twenty feet in length and are usually equipped with a three and a half or four horse power motor either of Canadian or United States manufacture. Some of their sailing vessels are also equipped as auxiliaries.

Under present methods the carrying on of the lobster industry is extremely simple.

The men start out in their power boats or auxiliaries on the favorable tide, and within a few hours set their traps in selected waters, ten or twelve miles from home if need be. The traps are first baited with herring, then anchored in six or seven fathoms of water, and properly buoyed so that they may be easily located.

At the next propitious tide on the same day the boats proceed over the course again, and any lobsters trapped are secured, and taken to shore for disposal.

There the fish are sorted out according to size. The larger ones are packed in alternate layers of seaweed in especially prepared crates, and forwarded to Yarmouth by the mail steamer for transportation to the different parts of Canada and the United States.

The smaller lobsters, the tinkers, are sold to commission men who control and operate the canneries where the fish are boiled, the meat extracted ,and then packed immediately in sealed tins for market.

These canneries have been roughly built of wood, but are well adapted for the purpose of their construction. And there is little doubt that in the main the stringent measures required by the government for the protection of the ultimate consumer have been faithfully carried out. And this too, not because there is no opportunity to evade the law, but for the reason that successful canning depends upon keeping everything neat and clean.

A Lobster Fishing settlement on the Tuskets.

For instance, care is taken that the canning be done in a building used exclusively for that and no other purpose. And a stranger cannot help noticing that the washing vessels and boxes used for holding lobster meat are constructed of either agate water, porcelain, or lined with galvanized iron, the last seeming to be the favorite method. Then the packing tables are covered with glass, marble, agate, porcelain, are lined with galvanized iron the last again the favorite method. And more important probably than every other requirement sufficient water is employed so that all these accessories of the industry can be kept thoroughly washed and flushed.

The commercial life therefore at the Tuskets apparently is all that can be reasonably required.

The amount of money the trappers receive for the product of their toil and labor varies according to the supply and demand though usually one of these spec-

ially prepared crates holding from one hundred to one one hundred and twenty five pounds will bring from ten to twenty five dollars.

The smaller lobsters fetch remarkably small prices, sometimes not averaging two cents a fish. But for all this men are able to make a fair living for the country. Several of the natives told the writer that it would have to be a bad year indeed if they did not net five or six hundred dollars, an amount that compares with the rewards of fishermen in many other localities.

The natives of the Tuskets, however, do not have to depend entirely upon the lobster for their living. Out of season from June first to December fifteenth they find occupation by engaging in the cod and haddock fisheries.

FISH MEN AS FISHERMEN.

Mr. W. R. SPOONER, Montreal (left) and Mr. ARTHUR BOUTILIER, Halifax (right) standing against the pilot house.

Codfish are not particularly numerous off the shores of Nova Scotia, and run rather small. Still they are sufficient to make it pay to go out after them. So the power boats and auxiliaries manned by their owners sail out to sea at daybreak far enough to a ledge where the fish are known to congregate and bring back their catch every afternoon to commission men on shore who are always willing to purchase all they can for salting purposes.

This cod fishing is carrried on during the fine weather of summer and early fall. A boat is seldom away for more than seven or eight hours for unlike the old time sailing craft these vessels propelled by gasolene engines need pay slight regard to the tides or weather under the skilled handling of the Tusket lobsterman.

Fish Packed in Oil

Interesting United States Treasury Decision.

The United States Court of Customs Appeals on February 23, 1915, affirmed the decision of the Board of United States General Appraisers with reference to the classification for duty of fish packed in oil and other substances, as follows:—

Fish in Oil.

The chemical analysis showed 5.7 per cent. oil with these fish in tins. It is immaterial how this oil became present. The additional duty provided in paragraph 216, Tariff Act of 1913, was intended to reach any case in which oil is part of the substance in which the fish is found packed when offered for importation.

The presiding judge delivered the opinion of the court, as follows:—

Paragraph 216 of the Act of 1913 reads as follows:—

Fish, except shellfish, by whatever name known, packed in oil or in oil and other substances, in bottles, jars, kegs, tin boxes, or cans, 25 per centum ad valorem; all other fish, except shellfish, in tin packages, not specially provided for in this section, 15 per centum ad valorem; . . .

The evidence discloses that the fish are prepared by first boiling in oil, when they are put in baskets of wire netting where the oil is allowed to drain off. It would appear from the results attained that the oil is not entirely eliminated from the fish when tomato sauce is added, and the fish placed in tin cans and sealed. The sauce is principally tomato sauce, but as found by the board it also contains oil visible to the eye. The evidence of the Government chemist shows that the sauce contained 5.7 per cent oil, the major portion of which probably consists of vegetable oil.

The importers contend that the goods are dutiable under the second provision of the paragraph for all other fish except shellfish in tin packages at 15 per cent ad valorem, the contention being that the fish are not packed in oil and other substances in the sense that brings them within the provisions of the first clause of the paragraph. The board held, however, that it is immaterial how the vegetable oil became present in the tins; that if, as a matter of fact, the substance in which the fish were found in the tins as packed consisted of oil and other substances, this is sufficient to bring it within the first provision of the paragraph.

We think this is the correct interpretation of the statute; that the purpose was to provide for an additional duty in case oil alone or oil with other substances was used in the preparation of the fish in packing; and that the provision is not aimed at the method of application, but is intended to reach any case in which oil is part of the substance in which the fish is found packed when offered for importation.

ITALY LOOKING FOR CANNED FISH AND LOBSTERS.

From private sources we learn that officials of the Italian Government are enquiring for the addresses of canners of fish foods and lobsters here in Canada. Dealers should get in touch with the Italian Consuls in their locality.

A CHAPTER IN THE HISTORY OF THE NEWFOUNDLAND FISHERIES

By J. W. McGRATH.

The history of Newfoundland is essentially the history of its fisheries. The development of most great industries has been slow and systematic, but the Newfoundland fishing industry experienced no such process. Simultaneous with the discovery of the island in 1497, came the discovery that in the Newfoundelande there was a vast dormant fishery resource, and from this moment the advent of the Devonshire, French, Portuguese, and afterwards the Spanish fishermen, is authentically recorded.

Such vast proportions did the pursuit of this fishery instantly assume and so remunerative and productive did it become that Lord Bacon was able to declare in his day "The Cod fishery of Newfoundland is worth all the gold and silver mines of Peru." Still, the life of this great fishery has by no means been one of uninterrupted sunshine. On the contrary, it has many gloomy pages to record.

Apart from the disasters and loss to lives and ships, natural to such a work, other influences externally retarded its progress. The Newfoundland fishery was verily a cosmopolitan industry, and the unsettled condition of international relations was reflected, time and again, amongst the fishermen in these waters, but by far the most serious obstacle to the steady development of this fishery was the unwise and even highway legislation passed by some of the early English monarchs.

To speak chronologically it is necessary to go back to the year 1498—the year succeeding the discovery of Newfoundland. In the spring of this year a number of Devonshire men voyaged together across the Atlantic to establish and engage in the new fishery. These adventuresome spirits came, no doubt; more from their love of danger and exploration than from any serious intention to participate in the fishery; but so plentiful did they find the cod fish that cargoes were easily secured and they returned to England to be known henceforth as the pioneers of the Newfoundland fisheries During the five following years the Devonshire men alone sailed their little cockle shells across the stormiest sea in the world to engage in the fishery, but so remunerative was their work that the Portuguese in 1501 abandoned fishing on the Irish coast and turned their prows across the Atlantic to continue their avocation in the new waters. Following the example of the English and Portuguese, the great majority of French fishermen engaged in the work, in 1504.

Despite the Anglo-Franco hostility, it is admirable that amongst the fishermen of these respective nations, most amicable and cordial relations existed, and each succeeding year, despite wars and rumors of wars at home, the fishing fleets of the different countries formed a junction and together traversed the Atlantic. When the fishing bank was reached the fleet divided itself into two parts; one part remained where it was and fished; the other division sailed to some harbor on the coast and in turn divided itself according to nationality into squads of five ships each. Each of these companies prosecuted the fishery along the coast, till the end of the voyage, the last of August, when all returned to St. John's, and having joined the Bank fleet with their harvest they set sail homeward. With the French and Portuguese the crews received wages, but the English captains gave to their crews the value of one-third of the catch. In the beginning the size of the vessels averaged about seventy tons each, but they soon showed themselves totally unsuited for the work. In 1520 a much larger vessel and one more adapted to the work began to appear, firmly constructed, but devoid of gracefulness "a beast of burden rather than a bird of passage."

The arrival of the Spanish fishermen did not take place till about 1540. In this year the French had about sixty vessels fishing here. The following twenty years were a quiet period of development, but on the accession of Elizabeth to the English throne, the following Constitution was drawn up for the English navy. "For the increases of the provision of fish . . . . be it further enacted that every Wednesday throughout the year . . . shall hereafter be observed a fish day. Every person offending shall forfeit three pounds . . . ."

Till 1520 the island was regarded as a vessel moored in the middle of the Atlantic for the convenience of European fishermen. About this time, however, attempts at founding settlements were made. These colonists were men, part of fishing crews who remained behind in the winter, to cut timber and build boats.

The condition of the country in Elizabeth's reign is well described in a letter dated November 13th, 1578. It says:—"I have made four voyages to Newfoundland, searched harbors and creeks. . . There are more than 100 Spaniards taking cod, from 20 to 30 killing whales, fifty sail of Portuguese, one hundred and fifty sail of French and Bretons . . . but of English only fifty sail. Nevertheless, the English are commonly lords of the harbors where they fish. . . ."

Sir Walter Raleigh, who himself made a voyage to Newfoundland, conceived the scale to which this inexhaustable mine of wealth was potential of development, and induced the home government to interest themselves in the Newfoundland fishery. Through his instrumentality the Newfoundland fishermen secured a monopoly of supplying the English navy at the price of 20 shillings per one hundred pounds, when the market price was but 10 shillings. The following is an official parliamentary record of the same: "An indenture of bargain whereby the commissioner at Chester takes up for Her Majesty's service in Ireland 20,000 Newfoundland fish at 20s per one hundred lbs." Nor did Raleigh's great service end here. Some years later he became Governor of Jersey, and while there so glowingly did he advertise the Newfoundland fisheries that thousands of Jersey men were soon fishing in Newfoundland.

But already a great blight was upon the fisheries of the island. The prologue to the drama of the Spanish Armada was enacted even here. In 1585, Drake, with men-of-war, entered St. John's, seized all the Spanish fishing craft and merchant men and brought six hundred Spanish fishermen to England as prisoners, as well as confiscating both cargoes and ships. Two years later came the Armada, and as "the wind blew and they scattered, so the fleet of one hundred and fifty

Spanish cod and whaling vessels disappeared for ever from Newfoundland.

And just as the defeat of the Armada struck the death blow to Spain's Newfoundland fishing fleet, so it gave an impetus to the English fishermen, and from this time forward West country men began to come to Newfoundland in greater numbers, so much so that in 1600 the English fishing fleet numbered more ships than the fleets of all the other nations combined.

The reign of James I. has become known as the "fishing admiral period." Bands of Devonshire men who had always been amongst the floating population, settled down permanently along the eastern coast.

In 1610, John Guy obtained a charter from the English sovereign to found fishing settlements, but the object of the charter was perverted to a fish trading company. Lord Bacon was the prime mover in this concern. The company bought fish and oil from the fishermen, and, by making it unnecessary for them to market their catch themselves in European markets, indirectly encouraged the forming of colonies. Perhaps the greatest anomaly of that time was the appointment of fishing admirals to rule the island. The captain of the first English fishing ship, arriving on the coast in the spring, was admiral for that year. The ignorant men, vested with absolute authority, dictated their arbitary measures from the cabins of their fishing craft. Being themselves above the law, they became half pirates and were, in reality "Monarchs of all they surveyed." All during this reign, companies, many of them bogus, sliced up the whole sea coast between them and then made an attempt to prevent fishing craft from entering ports included in territory granted to them without forfeiting sums of money for each entrance. To justify these illegalities the home government dispatched "a ship who had a commission to be admiral . . . to restrain interlopers and such fishing ships as came to fish and trade without a license . . . but he could do no good . . . . for they were too strong for him and he found ye fishermen to be stubern fellows." To prove the legitimacy of this monstrous monopoly of the sea coast, the companies brought the case to be tried before the House of Commons. The great lawyer Coke spoke thus: "Your patent contains many particulars contrary to law and liberty of the subject; it is a monopoly, and the ends of private gain are concealed under the color of planting a colony. To prevent our fishermen from visiting the sea coast for fishing is to make a monopoly upon the seas, which are wont to be free, and if you alone are to pack and dry fish, you attempt a monopoly of the wind and sun."

With the ascent of the unfortunate Charles I. to the English throne the question was again debated. A bill for the maintainance of the fishing in Newfoundland was unanimously acceded to by the commons, but the court party, which was a tool of the state, rejected the Bill. Significantly enough this was the prime difference between Charles and his people, and undoubtedly was the cause of his downfall.

At the beginning of this reign, English vessels engaged in Newfoundland fisheries numbered about two hundred and fifty sail. That the English had ousted their competitors here is shown by an act which extended permission to the French to cure fish on the coast, if they paid 5 per cent of the value of their catch to England All through the reign affairs in Newfoundland were but a reflex of the character of the English King himself.

Absolute and injudicial patents were extended, which not ony adversely affected fishing operations, but even nullified previous grants of other English sovereigns.

The attempt to prevent fishermen from settling along the coast was a complete failure. For one reason or another wealthy families having interests in Newfoundland anticipated that it would be detrimental to their interests if this colony became permanently settled; and to pacificate these, more than for any other reason, Charles I. passed laws to forbid people settling in Newfoundland, which failed. Towards the end of this reign the first fish trade relations with New England began. Fish and oil were bartered for corn and cattle.

The downfall of the monarchy furnished another occasion to disorganize fish trade, and was a powerful impediment to vessels coming here to fish, so much so that in one season the number of our craft fishing here dwindled from three hundred to one hundred. The paralysis to fishing operations that the war had brought about, vanished as soon as the conflict ended. The new ruler recognizing the value of the Newfoundland fisheries, extended admirable facilities to the men in fishing whilst the marketing of the catch was done, accompanied by three armed navy ships as a convoy. Ship building on a new and extensive scale was adopted, and received every encouragement. The land known as the isle of "fish and fog" had now, for the first time, began to come forth from the fogs of ignorance that for one hundred and fifty years surrounded her and retarded her industrial progress.

TO SECURE MODUS VIVENDI PRIVILEGE FOR U.S. AUXILIARY FISHING CRAFT.

Mayor Curley, of Boston, Mass., is interesting himself in an effort to secure the privileges of the Canadian modus vivendi license for American fishing craft equipped with auxiliary power.

Under the terms of the Modus Vivendi agreement, American auxiliary propelled fishing crafts are ineligible to fishing licenses in Nova Scotia waters, while in Newfoundland, except on the treaty coast, licenses are denied entirely. To-day, a large percentage of the fresh fishing fish is equipped with engines, the result being that only sailing crafts without motive power can avail themselves of the privilege of taking out a license at Nova Scotia.

As to Newfoundland, the fishermen hope not only to secure license privileges, but baiting concessions as well.

Mayor Curley became interested in the case, while a member of Congress. The mayor has promised his best endeavors in behalf of the fishermen.

HIGH LINE HALIBUT TRIP.

The American Schr. Monitor, Captain George Marr, stocked $4,045 on a recent Atlantic halibut trip. The crew shared $102 clear. The high dory shared $137, and the cook $200.

CAPE NORTH SHACKERS FITTING OUT.

The American Cape Northers expect to get away about April 15th. Ice reports indicate that the Magdalens will be free earlier this year than last season, and prospects are good for early baitings there. About the same number of vessels will go north.

Wholesale Fish Prices, Montreal Markets

(Quoted by D. Hatton Company.)

Demand for fish of all kinds up to the present has been on the increase in general, only during month of January on account of mild weather frozen fish was neglected and accumulation was such that when Lent season was on in spite of the good demand, it was not absorbed freely enough and as a consequence prices were knocked down to the lowest level known for quite a long time. A good lot of frozen fish is left yet in first hands, and the prospect of mild weather and the re-appearance of fresh fish again has a bad effect on prices generally.

Pickled and Salt fish have taken an opposite course, and are generally scarce, and at a higher price. On account of Jewish holidays being on hand in a few days, demand for fresh carp, dore, perch, and pike is active and prices stiff.

Smoked fish such as haddies are a drug on the market when kippers are unobtainable.

Tom cods have been selling as low as 75c a barrel lately.

During these strenuous times, when money is scarce, "Eat plenty of Fish" should be the motto. A few dollars' worth of fish to-day means quite a lot of good healthy food, and should appeal to people with a small pocket book and a large appetite.

Smoked Fish.

Haddies, 15 lb. boxes new ..per lb.	$ .07
Haddies, 30 lb. boxes ..per lb.	.07
Haddies, Fillets ..per lb.	.09
Haddies, boneless, 15 and 30 lb. boxes	.08½
Yar. Bloaters, 60 in box, Selected	1.25
St. John's Bloaters, 100 in a box	1.00
Kippered Herrings—Selected	1.40
Kippered Herrings—Other brands	1.25
Smoked Herrings—large size, per box	.18
Smoked Herrings—medium, per box	.20
Smoked Boneless Herrings, 10 lb. box	1.20
Ciscoe Herrings, a basket 15 lbs.	1.50
Smoked Eels	.12

Fresh Fish.

Halibut ..per lb.	.11	.12
Haddock ..per lb.	.05½	.06
Market Codfish ..per lb.	.04½	.05
Steak Sodfish ..per lb.	.06½	.07
Carp ..per lb.		.12
Perch ..per lb.		.10
Lobsters, live ..per lb.		.30
Lobsters, boiled ..per lb.		.32
Dore ..per lb.		.15
Pike ..per lb.		.10
Perch ..per lb.		.08

Frozen Fish.

Salmon—Gaspe, large ..per lb.	.10	.10½
Salmon—Red, Steel Heads ..per lb.	.10	.10½
Salmon—Red, Sockeyes ..per lb.	.09	.10
Salmon—Red, Cohoes or Silvers, per lb.	.08	.08½
Do. Dressed ..per lb.	.09½	.10
Salmon Pale Qualla, dressed ..per lb.	.07	.07½
Halibut large and medium ..per lb.	.08	.08½
Mackerel, Bloater ..per lb.	.07½	.08
Herrings, medium, 50 lb. per 100 count		2.50
Haddock, medium and large ..per lb.	.04	.04¼
Market Codfish ..per lb.	.03½	.04
Steak Codfish ..per lb.	.04	.04½
Pollock ..per lb.	.03	.03½
Tommy Cods ..per lb.		1.00
Smelts, extras 10, 20, 25 ..per lb.		.15
Smelts, medium to large ..per lb.		.10
Smelts, small ..per lb.		.06
Canadian Soles ..per lb.		.07
Blue fish ..per lb.	.15	.16
Striped Sea Bass, large ..per lb.	.14	.15
Sea Trout ..per lb.	.10	.10½
White fish, large ..per lb.	.08½	.09
White fish, small Tulibees ..per lb.	.06	.06½
Lake Trout, large and medium per lb.	.08½	.09
Dore, dressed or round ..per lb.	.07	.07½
Eels ..per lb.		.09
Pike, round ..per lb.	.05½	.06
Eels ..per lb.		.10
Shad, 3 lbs. each		.08
Frogs, 10 lbs. tins		.20

Pickled Fish.

Salmon, Labrador, Tierces 300 lb.	20.00
Salmon, Labrador, Brls. 20 0lb.	14.00
Salmon, B.C., brls.	13.00
Sea Trout, brls.	12.00
Sea Trout, half brls., halves	6.50
Mackerel, N.S., Brls. 200 lb.	12.00
Mackerel, N.S., Hf. Brls. 100 lb.	6.75
Mackerel, N.S., Pails, 20 lb.	1.50
Herrings, Labrador, Brls.	6.00
Herrings, Nova Scotia, Brls.	6.00
Herrings, Nova Scotia, Half Brls.	3.50
Lake Trout, Half Brls.	6.00
Quebec Sardines, Brls.	6.00
Turbot, brls.	14.00

Salt Dried & Prepared Fish.

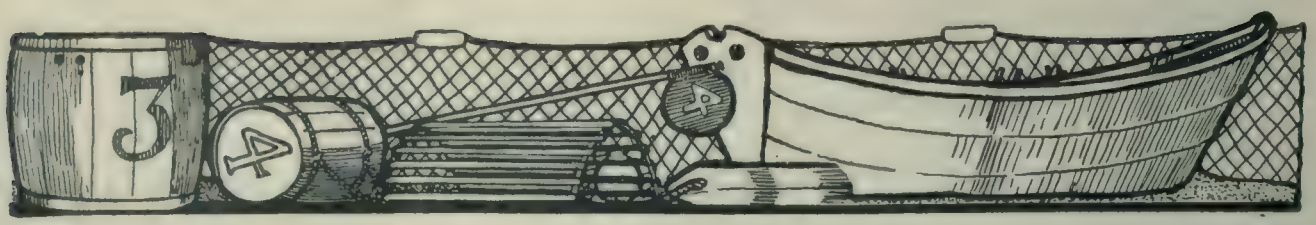
No. 1 Green Cod, large, per barrel	11.00
No. 1 Green Cod, medium, Brl.	10.00
No. 1 Green Cod, small, Brl.	9.00
No. 1 Green Cod, Haddock, medium, Brl.	9.00
No. 1 Green Cod, Pollock, medium, Brl.	8.00
No. 1 Green Cod, Hake, medium, Brl.	7.00
Quebec Eels, large, per lb.	.07½
Dried Codfish, med. & small 100 lb. bundle	7.00
Dried Hake, medium & large 100 lb. bundles	6.00
Dried Pollock, medium & large 100 lb. bund.	6.00
Dressed or skinless codfish, 10 0lb. case	7.25
Boneless Codfish, 2 lb. blocks, 20 lb. boxes	.08
Boneless Codfish, strips 30 lb. boxes	.11
Shredded Codfish, 12 lb. boxes, 24 cartons, ½ lb. each, a box	1.75

Bulk Oysters, Clams, Etc.

Best Standards, imp. gallon	1.40
Solid meats, imp. gallon	1.70
Selects, best, imp. gallon	1.80
Selects, solid meats, imp. gallon	2.00
Best clams, imp. gallon	1.50
Best Scollops, imp. gallon	2.00
Best prawns, imp. gallon	2.00
Best Shrimps, imp. gallon	2.25
Oysters pails, ¼ gal. per 100	1.10
Oysters pails, ⅛ gal. per 100	.90
Oysters pails, 1-15 gal. per 100	.70
Sealed best standards, quart cans, each	.35
Sealed best selects, quart cans, each	.45

Oysters, Clams, Mussels and Shell Fish, Crustaceans,

Cape Cod shell oysters, per barrel	9.00
Malpeque shell oysters, selected C.C.I., brl.	10.00
Malpeque shell oysters, selected, J.A.P., brl.	9.00
Clams, per barrel	6.00
Mussels, per barrel	5.00



THE ATLANTIC FISHERIES

CANSO NOTES.

(Special Correspondence.)

The extremely fine weather conditions of February especially the latter end, induced a number of the Whitehead shore fishermen to try their luck offshore, and during the first days of March some not-very large catches were obtained. The weather man, however, did not look with favor on such unusual "doings," and after the first week, March began to live up to her reputation as a particularly rough, boisterous month, and the attempt at boat fishing had to be given up.

The Rayondor, early in March brought in a fare of 150,000 lbs., after which she sailed for Halifax to undergo repairs.

The Government steamer "Thirty-three," a familiar object in shipping circles on this coast and recently employed in running between the military outposts established in this vicinity since the war began, was ordered to Halifax, by the authorities. She sailed Saturday the 13th inst.

The lobster season on this section of the coast opens on April 1. Of course, as is well known, the market is not as flourishing as in recent years, so that the prospects for a successful season are not as bright as they might be. The men are now preparing for the opening, but the quantity of gear in operation is likely to be smaller than usual.

CHARLOTTETOWN, P. E. I.

(Special Correspondence)

At the annual meeting of Bruce Stewart & Co., Ltd, held here recently, a dividend of 6 per cent. was declared. This firm have the largest machine shop, foundry, and boiler making plant in the province. They have been making a specialty of manufacturing marine gasolene motors of the type largely used by fishermen, and as the days of the sail boat are now over, and every one of the many lobster factories encircling the Island, has its fleet of motor boats, there is a big demand for the above motors. Last year the number turned out by the firm showed a marked advance over that of the previous year. This season, however, as only about two-thirds of the factories are expected to be in operation, owing to the slump in the prices of lobsters, as a result of the war, there must necessarily be a decrease in the fishing fleet and a falling off in the demand for gasolene motors. The value of the output by the firm last year was $170,000. The demand for motors in other provinces was exceptionally good and even for distant markets such as New Zealand were found for the product. The plant was in operation continuously during the year, and the wage bill amounted to $45,000. The net profits of the business amounted to 12 per cent., half being paid in dividends and the balance placed to rest account.

The directors in closing their report said — "The outlook for the year is shrouded in mystery. What the future holds out for us we do not know. We have every hope that the war will end in a victory for the allies before the close of the year and in that case business will again become normal. In any case the war will not affect business in the Island to the same extent as on the mainland, and we look hopefully for another year of good business.

NEW BRUNSWICK NOTES.

(Special Correspondence.)

"In reply to 'Fishermen's' letter in the St. John Standard, criticizing an interview of mine in which I suggested that a lobster hatchery would be a good thing for St. John and Charlotte counties, I want to say I'm not the only one who thinks so," said Lewis Connors, of Connors Bros., Black Harbor. "Since the interview was published, I received a number of letters from men interested in the fishing industry commending the idea. "Fishermen" insinuated we wanted to can lobsters again. We had to abandon canning lobsters some time before the present size limit was established. We have no hope of canning lobsters again, because the fishermen can get too high a price for fresh lobsters.

"In his letter "Fishermen" suggests that the value of the lobster hatchery at Boothbay, Me. depends on the fact that lobsters brought from Nova Scotia, which develop seed after being impounded are utilized, when otherwise the seed would be destroyed. That is hardly to the mark. In Charlotte county lobsters are impounded in several places. If these lobsters develop seeds, the Dominion Department of Fisheries purchases them, and liberates them. The Maine hatchery buys many seed lobsters that we caught on the Maine coast. My contention is that a hatchery would give better results than is secured by natural propagation, as is the case with artificial culture of salmon. When a seed lobster is liberated, it may be caught in a day or two, and the fisherman may destroy the seed in order to sell the lobster on the market."

"What I am interested in, is getting light on the question," said Mr. Connors. "Hon. Mr. Hazen has shown a keen interest in the fisheries, and has been quick to adopt reforms. If it can be shown that a lobster hatchery is desirable. I have no doubt Mr. Hazen would see we got one as soon as possible. Though we can't expect the government to do anything in this connection until the war is over.

"Among officials of the Fisheries Department and fishermen themselves, the value of lobster hatcheries is still a matter of dispute; but is significant that Dr. Hugh M. Smith, Commissioner of Fisheries for the United States, a Scotchman, and a great authority on the fisheries, has commended the work of the Maine Hatchery, and exercises personal supervision over it.

Commissioner of Fisheries for Maine, Mr. Woodbury, is well satisfied with the results obtained by the hatchery, and in his last report says he expects to establish a rearing pond in connection with the hatchery to retain the fry till they are 1½ inches long, when their chances of life will be increased.

"Fisherman" declared the catch in St. John and Charlotte counties had increased in the last few years, and seemed to think that an argument against the need of a hatchery. Increasing prices of lobsters have increased the number of lobster fishermen; besides, motor boats have increased rapidly, and men are able to cover more ground, and do more work, than formerly. It would be surprising if the catch had not increased; the capture per trap would be a better indicator.

Other Views.

E. E. Hahn, superintendent of Bureau of Fisheries, in the course of an interesting letter referring to the Maine hatchery, says:—

Mr. RICHARD O'LEARY, Richibucto, N.B., Director of C. F. A. for New Brunswick.

"We collect from twelve to twenty thousand seed lobsters each year, and liberate from 175,000,000 to 190,000,000 fry. We feel that the work is a great benefit to the lobster industry and that millions of eggs are hatched that would otherwise be lost."

John T. Paul, Beaver Harbor, N.B., wrote to Mr. Connors expressing his appreciation of his views on the lobster hatchery question, and added:—"I do not know of anything which our government can do which would benefit our fishermen more than the establishment of a lobster hatchery in this vicinity, as those in other places are proving a great help, and as lobster fishing on the shores of this county cannot be expected to remain as good as it has been for any great length of time, unless something is done to increase the supply."

Joseph Macwhinney, of Mace's Bay, wrote:—"I think, and others also, that a lobster hatchery in either Charlotte or St. John counties would be a very great benefit, as I think, or in fact know, that the lobsters have decreased fifty per cent within the last five or ten years."

D. Thompson, of Beaver Harbor, wrote:—"It would be of the greatest benefit to St. John and Charlotte counties to have lobster hatcheries, as it would doubtless increase the supply and give employment to fishermen at a season they greatly need it. In the last ten years lobsters have decreased, but not so noticeably as in the last few years, caused by the change in the close season."

B. L. Paul, manager of the Beaver Harbor Fish Company wrote:—"We note with much pleasure your interview in the St. John Standard, and we wish to commend you highly on the stand you have taken regarding a lobster hatchery. In our estimation this is one of the best benefits that can be secured to help the fishermen of our county. We are assured lobster hatcheries are past the experimental stage, and are a good thing. Anything which we may be able to do regarding this matter will be done cheerfully, as we wish to keep the interests of our fishermen well protected, as the fishing industry is one which is of too much value to be slighted or allowed to decrease."

ST. JOHN, N.B.

Special Correspondence.)

Owing to mild weather in the Bay of Fundy, the local fresh fish market has been pretty well supplied during the past month, although the supply of fresh lobsters has been somewhat uncertain. Fresh fish prices generally have maintained an average level. Lobster prices have varied with the supply, but in general, owing to the ready market in the States only the smaller lobsters have reached this market and prices have been very high.

In regard to the salt fish market prices have remained firm, but the demand for salt fish throughout the province during Lent was not as good as was expected. In spite of the decreased local demand St. John dealers in salt fish have comparatively small stocks on hand, and are expecting a stiffening of prices before new supplies are available. Salt herring are scarce.

The Libby-Laing Company of Boston and New York have purchased the plant of the Canadian Sardine Co. at Chamcook, from the Bank of Nova Scotia, paying, it is said, about a quarter of a million dollars. This company which does business at Gloucester, Boston and New York, intend to put up a four-story cold storage plant in connection with the canning factory, and carry on a general fish business there as well as canning sardines. This should give an impetus to the development of the Bay fisheries.

Connor's Brothers, of Blacks Harbor, resumed operations in their sardine canning factory on the first of March.

"The Maritime Fish Corporation has done more business this winter than it did last season, and fresh and mild cured fish are selling lower in Ontario and Quebec and points west to-day than this time last year," said A. H .Brittain of Montreal, business manager of the big fish company, who was in St. John the other day. "People cannot complain about the high cost of living so far as fish are concerned.

S. J. Walker, of the marine and fisheries department, Ottawa, arrived here recently to make an in-

spection of the Dominion Government hatcheries in this vicinity. Mr. Walker found the Little River hatchery in good shape and the fish are now beginning to spawn under favorable conditions. He said that he expected a very generous distribution of salmon and speckled trout from this hatchery this year. The shad hatchery in the Washademoak will be conducted as usual this year, beginning June 1. Mr. Walker left to continue the inspection of hatcheries throughout the maritime provinces.

LUNENBURG, N.S.

The following vessels of the Lunenburg fleet have left for the Spring fishing this month (March):

Schooner Mary J. Fleming, Captain W. Zinck: Clintonia, Mack; James Burton Cook, Abram Cook; W. T. White, Knock; Carrie L. Hirtle, Hirtle: M. M. Gardner, N. Backman; H. L. Montague, R. Knickle; Revenue, J. Zinck; Cecil L. Beck, Beck; Muriel B. Walters, A. Walters; James Douglas, Romkey; Francis W. Smith, Mossman: H. H. MacIntosh, Whynacht; Delawana, B. Cook; Doris V. Myra, Myra; Hawanee, W. Cook; Lottie A. Silver, R. Silver; Donald A. Silver, O. Silver: Assurance, F. Zinck; R. L. Borden, A. Himmelman; Lucille B. Creaser, A. Creaser; Matanzas, N. Wentzell: Marion A. Silver, R. Silver: Lillian B. Corkum, W. Corkum; Loretta Francis, W. Spindler; Jennie Ritcey, A. Ritcey: Pasha, L. Ritcey; W. C. McKay, W. Deal; Ada M. Westhaver, W. Mason; Associate, A. Backman; Gladys B. Smith, S. Oickle; Uda A. Saunders, I. Spindler; Vera Himmelman, A. Conrad. The vessels baited with frozen herring supplied by the Lockeport Cold Storage Co.

YARMOUTH, N.S.

(Special Correspondence.)

As far as the weather on land is concerned this month has just been a continuation of the preceding month, but it has been tough for the fishermen at sea. At the time of writing (the 22nd inst.) none of the local fleet had been out for 26 days. They have taken advantage of the time they have been in port in equipping for halibutting and are now ready. Bait is a serious problem, and Henry A. Amiro, our largest vessel owner, is finding it necessary to send to the United States, where he is getting "bluebacks" sufficient for his vessels. A few days ago he got two thousand alewives from St. John but finds it impossible to get any more. Prices are fairly good now, halibut, ex-vessel, being quoted at from 12 cents to 15 cents; haddock is not so high as it has been, and is quoted at $1.50 to $1.75, while cod and cusk is $1.50 to $2.00. Lobsters are off, the prices being $25 for large and $18 for medium.

The Gateway Fish Company are still making shipments to England. During the past few weeks they have sent 2,000 cases of threaded fish, and will get off as much more in a few days. They have had to scout around among the adjoining counties for fish, being unable to get any supply locally.

Now that it is about time to renew the modus vivendi, there is a strong agitation to get the fees reduced. Moses H. Nickerson, who is always to the front in the fisherman's interest, in a letter to the press, says:—

"This concession (the Modus Vivendi) has been annually renewed by the Dominion Government for nearly 30 years. It worksd well on both sides, though the license fees were so high, $1.50 per ton of the vessel applying that the intercourse was greatly restricted. Otherwise Yarmouth, Shelburne, Liverpool and other places east would have got more of the trade in bait, ice and supplies, while railroads and steamboats would have been busy in trans-shipping the fresh fares. And as in the case of all senseless restrictions, and some salutary ones too, the law was evaded to a surprising extent. Team loads of trawl lines and hooks would be hauled at dead of night to a harbor where vessels were sheltering. Sometimes a schooner with license would take on twenty odd new dories and divide up with the non-license fleet after getting outside. Often gear and supplies would be lowered through a trap door in a shed on the wharf, into a Yankee dory, pushing out carelessly through the piling, and no one would be the wiser or the poorer. Now the trade was honest, but these dodges are absolutely shameful. Just like the dark and devious ways by which whiskey filters into a peaceful hamlet and works its depravity. If you want to make a rogue out of a decent man, compel him to act like a rogue in legitimate trade. But now the auxiliary fishery craft are declared ineligible for license. This excludes almost nine-tenths of the fleet. Prominent citizens of Liverpool and other places are asking for a revision. The Canadian Government will probably be asked by Washington to modify the terms a little. Meantime members at Ottawa will, it is believed, favor both the reduction of the fees, and the lifting of the embargo.

But to revert to the fisheries. The most encouraging feature is in connection with the canned lobster industry, and this was caused by the improved demand in England owing to shortage of all kinds of fresh fish in the British Isles. Prices have not reached the high figures of the last two or three years, but they are considerably higher than at the first of the season, and will likely remain so.

The list of losses in the Gloucester fleet for the year 1914 has been published, and Yarmouth county has got off exceptionally easy, there being only two, namely, Louis Amero, of Yarmouth, aged 188, thrown overboard from the schooner Arethusa from the slat of a boom on February 18, and George M. Colson, 28 years old, one of the crew of the Clintonia, killed by a falling gaff at Souris, P.E.I.

The Gloucester schooner Maxime Elliott, Captain Stanley B. Hines, dragged ashore on Black Reef, Argyle Harbor, a week ago Sunday, subsequently floating off without assistance. She is now on the Marine railway here for repairs.

J. J. Cowie on Saturday evening opened a series of meetings here, explaining the new "Inspection Act." The town meet was poorly attended, but he expects to speak to larger numbers in the country.

The following have been the exports for the month: Live lobsters, crates, 2,218; fresh fish, boxes, 37; do., cases, 449; boneless cod, boxes, 6,235; fish clippings, barrels, 6; pickled fish, cases, 374; fish waste, barrels, 327; kippered herring, boxes, 56; dry pollock, cases, 1; scallops, half barrels, 117; clams, barrels, 38; canned lobster, cases, 297; smelts, boxes, 329; fish scraps, barrels, 19; dry salt fish, drums, 666; salt herring, barrels, 172; salt mackerel, barrels, 38; perriwinkles, barrels, 4; eels, barrels, 26; finnan haddies, boxes, 1,398; caplin, barrels, 2; bloaters, boxes, 250; fresh halibut, cases, 4; cod fillets, boxes, 30; glue stock, barrels, 5; to Havana, 99 drums dry salt fish; to France, 109 cases canned lobster; to England, 364 cases canned lobster; 2,000 cases threaded fish; to St. Kitts, 40 casks dry salt fish; to Panama, 85 drums dry salt fish.

THE PACIFIC FISHERIES

(Special Correspondence.)

CANADIAN FISHERIES ASSOCIATION AND THE PACIFIC FISHERIES.

Now that the Canadian Fisheries Association is formed, and that its beginning was marked by such enthusiasm as is shown by the reports in the "Canadian Fisherman", we must make it assured that the real objects of the Association will not be lost sight of. Of course as yet we on the Pacific are not yet organized to take hold and carry out the programme we wish for. But plain speaking can never do any harm.

Doing my little to help along the Association, I have come across various utterances that tend to show opposition and carelessness that must be combatted. The actual fisherman wants to be shown where he gets off and where he will be materially assisted by this Association. I do not think that I err in stating that on the Atlantic Coast, there is a feeling that exists in the mind of the fisherman towards the buyer and distributor of his catch, that should not exist. It is of a somewhat antagonistic nature, this feeling. It may be traced to the old enemies, Labor and Capital. Has any Association a better mission than to break down this feeling?

The officers of the Association are far better experienced than I am to suggest moves along these lines. The fishermen seem to think that by having the heads of the large corporations and fishing companies as officers in the movement, that they will not get any benefit. They feel that their own particular interests will be lost sight of. Could it not therefore, be arranged that when the provisional branches are formed in the different districts, that the fishermen themselves be given representation by one of their members? Speaking of what I have knowledge of, could not members of the Halibut Fishermen's Union and the Fraser River Fishermen's Association be represented on the board of the Pacific branch? Fishermen from representative bodies of the actual men who catch fish, would be of great assistance towards making the success of the Association a very material one. Such a move might assist in breaking down the feeling that I have mentioned above.

Again I have heard that the Association is all for the Atlantic. There is a feeling here, whether right or wrong is not the point, but still there is a feeling that the Pacific does not get the show that the Atlantic does. That such a thing should be in the minds of men, is a pity. One need only look at the returns of the Atlantic and Pacific to see that the Pacific is entitled to the fullest consideration. It may be that custom has a lot to do with the feeling. The fisheries of Canned Salmon, dates from the year 1876. Many Atlantic firms were in full swing years before this and are still in existance.

We do not feel that we have been getting the attention and assistance that we shoud have. In the matter of railways and the treatment we receive, we feel that we do not get listened to as well as our Atlantic friends. I do not think that I am far out when I say that the railways running from Pacific terminals (and I have to include the American terminals owing to the data available) draw well over the quarter of a million dollars in freight alone. This amount is quite exclusive of canned salmon and salt fish, being based upon statistics showing the movement of fresh and frozen fish in carlots only. Taking the proportion from British Columbia to be one quarter (and this well on the safe side, I think) the Canadian railways do not do so badly out of the fisheries of British Columbia. They can afford to make some concessions either in rates or rapid transport.

Then again there is the feeling that British Columbia does not get the attention it should in proportion to the size of the industry from the Government of Canada. This may be partly due to lack of sufficient representation. We have not sufficient representation to press our demands, nor have we the representation sufficient to obtain us the necessary assistance requirered to develope these fisheries. We have been heard from so far. The day is not far distant when we shall be "it" in the fishing world. We have the goods right here to do it with.

These few words may tend to show the need of the assistance of the Canadian Fisheries Association, and to show the work it has cut out for it as applied to British Columbia. Owing to distance from coast to coast, a long arm is needed to permit handshaking. Let the Canadian Fisheries Association be the arm wanted.

General Notes.

Lent is on us, but all the fishing trade of Vancouver seem to know about this season, is that in Eastern Canada, dealers look to Lent as the best season of their year. Lent makes no difference with us here. No more fish is eaten in this season than in any other. Consequently local sales have not been very bright, and dealers have found that the slack times all round have even effected them.

There was some grumbling over the fact that the training camps of the 2nd. and 3rd. Contingents were supplied with no fish. One has heard of a ton of halibut being bought for the camp at Hastings Park by the concern who has the meat contract. A ton of fish will not go very far amongst that number of men in camp there. It may be that the letter of the law is complied with, and that fish has been served to the men. But we want to see fish being given them regularly and in variety. Goodness knows there is no lack of supply.

Speculation is rife as to what effect the order-in-council which allows foreign vessels to land their catches and sell to Canadian dealers, will have on Vancouv-

er. It is acknowledged that this will be the makings of Prince Rupert. Indirectly it might be a benefit to the small dealer in Vancouver, but we shall have to wait to see what will happen.

Smoked Fish.

Eastern Finnan Haddies are advanced a little. The supply on hand is smaller than usual. There are many factors to attribute this scarcity to, one being the fact that a few cars got "let up" coming through, and another being the apparent scarcity in the East.

Other smoked fish is in good supply. The past winter has seen some close prices on Kippers and other lines. This sort of thing is shortsighted to say the least of it. It spoils the market and makes the buyers too insistent upon close buying.

Pickled Fish.

One notices a new departure in Vancouver. The Jackson Fish Company have opened a premises in the wholesale district, stocking Atlantic fish entirely. One sees the old-time Digby Chicks, salt herring, soft cured Pollock and Cod. With the heavy freight rates and with the dumping going on from Seattle and other centres of Pacific Cod, Vancouver seems to be losing her demand for Atlantic cured fish. She can only remain faithful to Finnan Haddies, and this is not from choice.

Salmon.

A few Springs are showing in the Fraser and are fetching good prices. Another few weeks and these will be along in good supply. Meanwhile owing to the irregular supply, dealers are working off stocks of frozen fish with good success.

Canneries are beginning to come to life again after the long winter lay off. Crews are being shipped to the different stations, and the vast preparations made to take care of the runs when they occur. The fishermen are speculating as to what prices the canners will offer for different fish.

Halibut.

Fresh Halibut has been in fairly steady supply, most of it arriving from the Northern points. The small boat "Trapp" landed a few days ago one of the best looking fish seen here for some time. The trip was quickly bought by the Canadian Fish and Cold Storage Co. Ltd.

The boats report stormy weather on the banks, and at least one "lame duck" has been reported. The "Banks" of the Atlantic have no lien on dirty winter weather. Some of the Pacific Halibut banks can equal anything they have to offer.

Mild Cure Salmon.

It is reported that owing to the fact that Germany is closed to trade now, that the pack of mild cured salmon both on the Sound and in Alaska will be limited. This may tend to make the pack of Canned Spring Salmon larger.

It is only when occasions like these arrive that one sees the far reaching effects that a closed market will have. Coopers will be without orders for the large tierces used; supply stores will have a limited sale of the "salmon" hook and so on. By the way most of the salmon used for mild curing is of the Spring variety. These are caught by trolling, and the hook used is one that has been adapted from the hand-made hook of the Coast Indians.

Other Fish.

German Carp, Soles, Smelts, Oolichans etc. are in good supply. Herring are fairly plentiful but small and full of milt and roe as usual at this time. Cod is plentiful and almost more is offering than the trade can take care of.

PRINCE RUPERT'S BRIGHT FUTURE.

That Seattle and other Puget Sound American cities fear lest Prince Rupert will take away a great part of their trade, is now manifested by a movement started in those centres to try to offset such an happening. Officials are considering the matter, and also a delegation has been sent to Washington, D.C., to confer with the Government of the matter.

Word was received in Vancouver a few days ago that an Order-in-Council had been signed as follows:—"Order-in-Council passed and signed to-day by Governor-General which permits all foreign bottoms to sell their fish in Prince Rupert or other British Columbia ports to Canadian fish dealers, who will, of course, have to assume the bonding regulations. Said foreign boats will be permitted to purchase all supplies and sign on crews. The customs will be notified of the re gulations as to those purchasing fish."

The above means a very great deal to Prince Rupert. Hitherto the only permission allowed regarding the landing of fish in British Columbia ports, called for the fish being landed and shipped in bond. This meant that only those vessels that could land in carlots were able to use the Canadian ports. The advantages of even this have been so marked that Seattle has taken notice and feels that her interests are threatened.

Prince Rupert being within a few hours of the halibut banks as against Puget Sound being two days or so, a saving of at least four days on a trip is thus effected. But when we come to consider the effect the new order-in-council will have on the smaller boats, we have something indeed to feel pleased over. It is the small independent boats that will benefit.

In 1914 the Puget Sound Halibut Fleet landed at Seattle and other Sound ports no less than 35,520,400 pounds of Halibut. Out of this total 22,434,900 pounds came from the independent boats, the rest being company boats. (These figures are gleaned from the Year Book of the Pacific Fisherman, a compilation that I would commend to every man in Canada interested in the fisheries). In addition to the above 6,305,-175 pounds of Halibut was landed from the Alaskan freighters.

Now, this is a lot of fish. It also stands to reason that out of this quantity there will be a considerable amount of second-grade fish owing to the fact that the boats had that long run to their home ports, and at the same time the fish brought down by the regular coastal steamers had a certain amount of handling that if avoided, would help the fish. By going into Prince Rupert, the fish will be handled quicker and shipped to the consumer quicker. It will also mean that the smaller boats can make more trips and have less lay-offs.

What the operators in Seattle and Tacoma will do, remains to be seen. There are all sorts of rumours flying around, but so far we have heard nothing definite of their intentions. But one thing that we believe and that is, that now onwards a very great part of the independent boats will run their trips into Prince Rupert. They will save at least four days, they can get their ice either there or from Ketchikan in Alaska which is not far away, and then get their provisions etc. at Prince Rupert.

One notices in the above order-in-council the remark:—..... permit all foreign bottoms to sell their fish in Prince Rupert or other British Columbia ports to CANADIAN fish dealers. . ." My point is on that word Canadian. The operators in Seattle and other Puget Sound points draw a very great deal of their supplies from the independent boats. If these

boats run into Prince Rupert to discharge, then these operators will be compelled to do either one of two things.

They will either operate in Prince Rupert or other British Columbia ports, and to do this will register, as a Canadian company operating under Canadian laws. This has been done for many years by a large Boston company. The other course open to them will be to operate their own vessels entirely.

This latter course will have its disadvantages. There and bound to be smaller boats and independent boats, and if these run into Prince Rupert, they will have a very materially reduced cost of operation, and so allow the fish to be sold cheaper. For the next two years at least whilst Canada can ship her fresh fish into the United States duty free, Seattle operators will be handicapped in favour of the Canadian operators. The Grand Trunk Pacific claims to have a shorter haul and to be able to deliver the goods quicker than any other railway running to the coast. This together with the fresher fish, cheaper cost and other factors that have to be taken into consideration, will influence the American markets in favour of the Prince Rupert packers. Even if the duty is imposed again, I think that Prince Rupert will still have the advantage.

So whichever way one looks at the question, it seems that the dreams of Prince Rupert are materialising. She aims to be the largest fishing port in America. I do not think that anything can stop her. Now that this new order-in-council is ratified, she will be a busy place. Hand in hand with the fishing industry go supplies and even factories. Oil fuel, provisions, nets, lines, hooks, engines, machinists, carpenters, grocery and other stores will all be needed. This will mean a certain influx of population, and a producing population that will have a pay-roll. I would not even be surprised to see a large number of Puget Sound families settle in the Northern British Columbia port.

Finally I may say that I do not own any lots in Prince Rupert that I want to sell to intending settlers. But I cannot but see that Prince Rupert will be materially advanced in her ambitions by the action of Ottawa of late.

WHOLESALE FISH PRICES, VANCOUVER, B. C.

(Quoted by London Fish Co.)

Smoked Fish.

Finnan Haddies, Atlantic 15s and 30s 10c-11c lb.

Fillets. 11c; bloaters 6c; kippers 7c; salmon 12c-15c; halibut 12c; black cod 12c.

Frozen Fish.

Salmon Steelheads 7c, halibut 6c; smelts, black cod; etc. 8c.

Fresh Fish.

Salmon Red Springs 11c-14c; white springs 5c; halibut 7c; cod 5c; smelts 6c; herring 5c; soles and whoting 5c; skate 3c; perch 6c; rock cod 6c; red cod 3c; bass 6c; black cod 8c; shad 8c.

Pickled Fish.

Acadia 12-2s and 24-2s, 14c; Strips 13½c; tablets 14c; bluenose, 1s and 2s 9½c; pilot 8½c; Nova Scotia turkey 7c; Pacific Boneless 8c; pacific whole cod 6c.

Shell Fish.

Crabs $1.00-1.20 doz.; shrimps 12c-18c; prawns 20c; clams 2s; shelled $1.25 gal.; oysters eastern shells 25c doz. shelled $2.85 gal. Olympia shelled $3.25 gal.

Canned Salmon.

Most of the Northern canneries have sent up their men for the opening of the season. Of course the fish will not be along for some time, but there are all sorts of preparations to make, and arrangements to be completed. When the fish start to come in, everything has to be in readiness, and each individual joins in the rush. The possibility of machinery breaking down is one to be guarded against, as such a happening might hang up the whole operations for the season. This means that each machine has to be gone over minutely.

Then again, as each cannery is a little city in itself, and operated by the cannery are stores, mess-rooms, sleeping quarters, and in fact everything that the industry embraces, it is easily seen that there is plenty of work for all connected.

Friday, March 12th. was Canned Salmon day in the U. S. A. All the railways operating from Washington State made a point of featuring the commodity on their menus. The Canadian Pacific Railway Company also had suitable souvenir menus for distribution. Such a movement is well worth imitating. The advertisement alone does vast good to the industry. Canada might well follow suit, and at the same time enlarge on the idea, and through the auspices of the Canadian Fisheries Association, might induce the railways and hotels of the Dominion to feature other fish, such as Finnan Haddies, Cod, Halibut, etc., etc.

The market is steady as regards sales. The next two seasons as far as Sockeyes are concerned, will see comparatively small packs. Humps or Pinks are due for a big run, but no low prices are anticipated, as shortage in other lines, will tend to steady up the price. The European Governments have been buying some of the cheaper grades of late, and so stocks are running low. The Sockeyes are about cleaned up, and the markets wil be ready for the new pack as soon as ready.

Prices:

Sockeyes. Talls $8.25; flats $8.75, half flats $10.25.
Cohoes:—Talls $4.75; flats $4.75; half flats $6.25.
Pinks:—Talls $3.50; flats $2.75.
Chums:—Talls $2.75; flats $2.75.

Owing to the fact that there are several species of Salmon on the Pacific, it may not be amiss to give particulars regarding the differences. To the average mind all salmon is alike; and in Eastern Canada Salmon is looked on as only salmon. We have five distinct species in British Columbia waters as follows:—

Spring.

This is the largest of all, averaging 22 pounds, but going up as far as over the 100 pound mark. These fish have other names than the Spring. In America where they are known also as the Chinook, King, and Quinnat. The Spring Salmon are to be caught in British Columbia waters practically the whole year round, the "runs" occurring between April and July.

The body is silvery, the back, dorsal fin and caudal fin having round black spots. On the sides of the head are seen a metallic lustre.

Sockeye.

In Alaskan waters this fish is known as the Red Salmon, south of British Columbia, a smaller species being called Bluebacks. The average weight is about five pounds, the "run" appearing in July and August. This is the fish over which there is such speculation as the why it should appear in its largest "run" every four years, the year being that after the leap year. But so far it has not failed to appear in vast quantities every fourth year. In colour the fish is clear bright blue on top, and silvery below. Later on in the season when it leaves the sea, the belly changes

from a dark red to dirty white. We are all familiar with the headlong rush this fish makes up the rivers to the spawning grounds, many dying on the way up; and the balance after spawning.

Cohoe.

This is also called the Silver on account of its colour. The upper parts are greenish with faint black spots. In the fall this fish becomes a dirty red.

Qualla.

This species is also known as the Fall, Chum or Dog. Its average weight is eight pounds. Early in the run it is of dirty silvery colour sprinkled with small black spots, dusky fins, and traces of gridiron-like bars on the sides. Its flesh is pink, and the fish is specially good for freezing, smoking and salting.

(These details are from the Year Book of the "Pacific Fisherman.")

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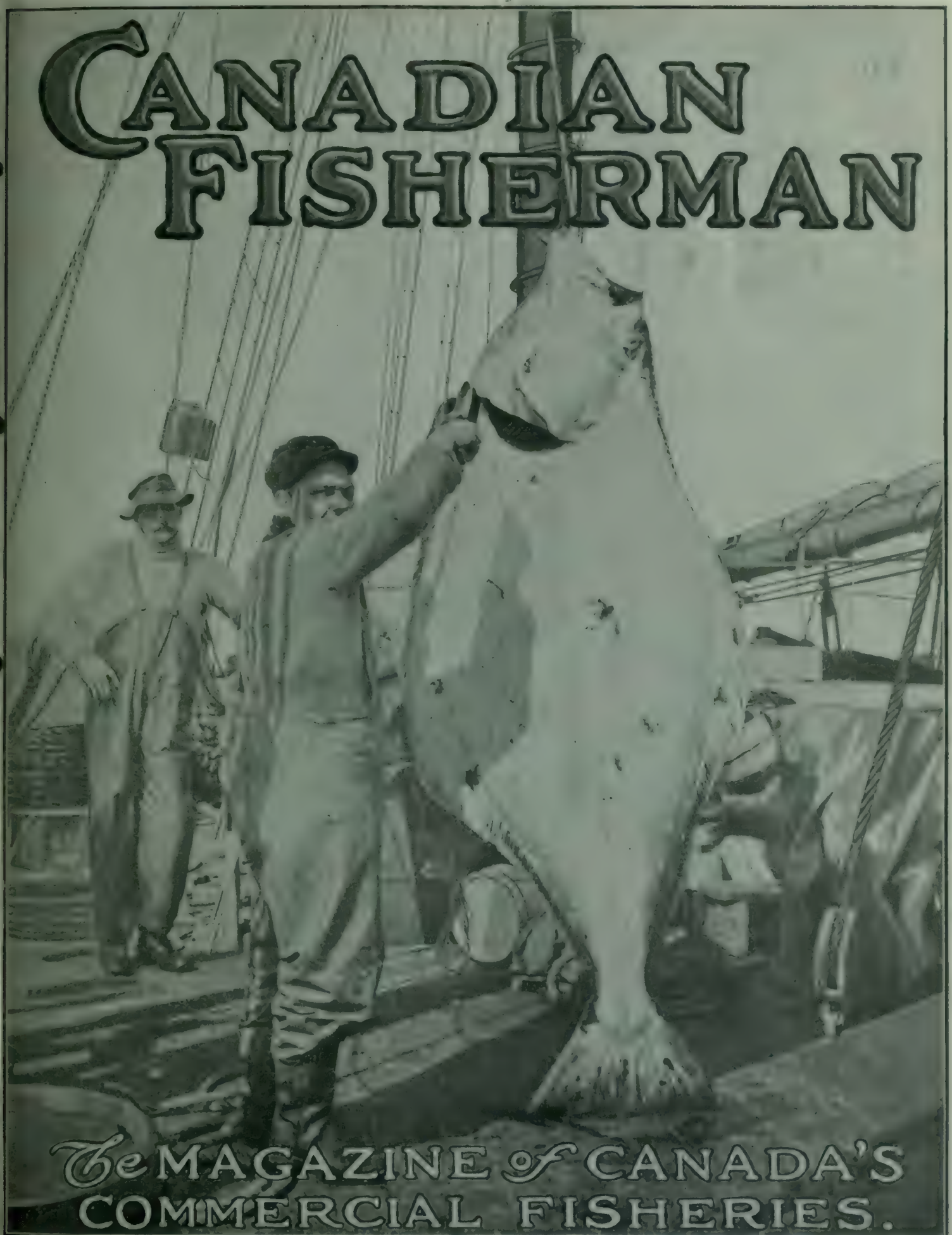
Vol. II. MONTREAL, MAY, 1915 No. 5

CANADIAN FISHERMAN



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On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license

To The Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to--

THE MINISTER OF COLONIZATION,
MINES AND FISHERIES OF THE PROVINCE OF QUEBEC

Department of Marine and Fisheries

LOBSTER FISHERY FISHING SEASONS
IN FORCE ON DECEMBER 1st, 1913

Number of District	LIMITS	Fishing Season	Size
1	St. John and Charlotte Counties, N.B.	Nov. 15 to June 15	4¼" carapace
2	Albert County, N.B. and Kings and Annapolis Counties, N.S.	Jan. 15 to June 29	No size limit.
3	Digby County	Jan. 6 to June 15	No size limit.
4	Yarmouth, Shelburne, Queens, Lunenburg, and that portion of Halifax County West of a line running S.S.E. from St. George's Island, Halifax Harbour, and coinciding with Fairway buoys.	Dec. 15 to May 30	No size limit.
5	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys, eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite.	April 1 to June 30	No size limit.
6	From Red Point, between Martin Point and Point Michaud, along the eastern coast of Cape Breton Island, around Cape North as far as Cape St. Lawrence; also the north shore of the Gulf of St. Lawrence from and including Blanc Sablon, westwardly to the head of tide, embracing the shores of the adjacent islands, including Anticosti Island.	May 1st to July 31	No size limit.
7	The Magdalen Islands, including Bird Rocks and Bryon Island.	May 1st to July 20	No size limit.
8	Waters of Northumberland Strait, between a line on the N. W. drawn from Chockfish River, N.B., to West Pt., P.E.I., and a line on the S.E. drawn from Indian Point, near Cape Tormentine, N.B., to Cape Traverse, P.E.I.	May 25 to Aug. 10	No size limit.
9	The waters around P. E. Island except those specified in No. 8.	April 26 to July 10	No size limit.
10	From, but not including, Cape St. Lawrence, Cape Breton Islands, south-westwardly to Flat Point, Inverness County, and from the Lighthouse in Antigonish County opposite Flat Point, westwardly along the strait of Northumberland and coast of Nova Scotia to Indian Point, near Cape Tormentine, N.B., and northwardly from Chockfish River, N.B., embracing the coast and waters of a portion of Kent County and of Northumberland, Gloucester, Restigouche Counties, N.B., and the coast and waters thereof of the Counties of Quebec, south of the St. Lawrence River.	April 20 to July 10	No size limit.

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of Marine and Fisheries is required.

Canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery, and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA, THE SCIENCE OF THE FISH CULTURE AND THE USE AND - VALUE OF FISH PRODUCTS -

F. WILLIAM WALLACE
EDITOR

The Industrial & Educational Press, Limited

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Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest. If suitable for publication these will be paid for at our regular rates.

Official Organ of the Canadian Fisheries Association

Vol. II. MONTREAL, MAY, 1915 No. 5

FISH DEALERS AND TRANSPORTATION OFFICIALS MEET.

With a view to clearing up some of the transportation problems which have been long out-standing in the carriage of fish from the Maritime Provinces to Quebec and Ontario points, a meeting of fish dealers and railroad officials was held in Montreal on Saturday, April 1th.

Mr. W. A. Found, Superintendent of Fisheries presided and among those present were Mr. C. A. Hayes, Traffic Manager, Intercolonial Railway, Moncton, N. B., Mr. E. A. Storey, General Freight Agent, and Mr. S. G. Tiffin, Division Freight Agent, Intercolonial Railway, Montreal. Among a number of fish dealers present were Mr. D. J. Byrne, President of the Canadian Fisheries Asociation, and representing Leonard Bros., Montreal; Mr. A. H. Brittain, Chairman of Transportation Committee, C. F. A., representing the Maritime Fish Corporation, Ltd.; Mr. J. A. Paulhus, Director, C.F.A., representing D. Hatton Co., Montreal; Mr. W. R. Spooner, Director, C.F.A. and Mr. J. Fraser, representing Lockeport Cold Storage Co.

The principle topic discussed was that of providing refrigerator cars at various shipping points in the Maritime Provinces for the safe carriage of perishable fresh and mild cured fish by express and fast freight services. The question of icing charges also came in for considerable discussion and the dealers expressed the hope that the railroad company would absorb the icing charges at terminals as well as while the fish were in transit.

It was also pointed out that the dealers had frequent cause for complaint owing to the shortage of refrigerator equipment at various shipping points thus necessitating the use of ordinary box cars which were not safe for the carriage of fish during hot weather. In addition to the regular Saturday refrigerator cars, the fish men recommended that this service be also extended to other days of the week and fish coming from other points like Mulgrave and Halifax be consolidated in the same refrigerator car at Truro. Mr. C. A. Hayes promised to take these matters into consideration for the Traffic Department of the I. C. R.

The dealers were also promised that better car service reports would be secured by wire with a view to keeping them informed regarding the movements of cars while in transit with cause and reason of delay should such occur. This concession provides much needed information of great importance to the fish trade.

Mr. Found on behalf of the Naval Service Department, promised to consider the guarantee of minimum quantities required for the refrigerator car service, and he announced that it was the intention of the Department to continue the existing arrangements by which one-third of the express charges on fresh and mild cured fish from Maritime Provinces to distributing points in Ontario and Quebec were paid by the Department. This arrangement has undoubtedly increased to a great extent the consumption of fresh fish marketed in inland points during the years the subsidy has been in operation.

FISHING VESSELS SAVED BY MOTORS.

We are continually advocating the use of motor engines in fishing craft and the fishing schooner without auxiliary power in these days is really out-of-date. Salt fishermen can get along very well without engines but market fishermen running fresh fish to markets should be equipped with power in addition to sail.

The advent of the steam trawler on our Canadian Atlantic coasts is regarded as a menace by our trawl fishermen and vessel owners. Whether it will be or not remains to be seen but if our fresh fish supply has to depend upon sail driven schooners, it is a safe bet that the steam trawler will come, and come to stay.

A fishing schooner's efficiency is increased a hundred per cent by an auxiliary engine. She can make her trips with more regularity and make her passage home to market in quicker time ensuring better quality in the fish. The great advantage of the steam trawler is its dependability and dealers who have to supply the market prefer a method of fishing that they can depend on in getting fish whether it is rough or calm. The Bank fishing schooner fits out, goes to the Banks and comes back to market when she has a trip. She may be out a week or perhaps a month. She loses valuable time in light winds and variable weather—time which could easily be saved were an engine employed to shove her along.

Without going into lengthy details on the manifold advantages of auxiliary power in fishing schooners, we will quote two incidents which happened recently in which two American Bank fishermen were saved by having power installed.

The Shelburne Coastguard says:—

"The Boston knockabout schooner Gladys and Nellie, Dwyer master, arrived here at an early hour last Saturday morning and presented a sorry sight being minus both spars and all sails. She had finished fishing on Quero bank and was homeward bound on the night previous when she got into bad weather off Cape Negro. Suddenly the jib stay parted, the forestay bitt pulled up through the deck and spars and sails went over the taffrail. At the time only two men were on deck—the lookout and the helmsman—and this is fortunate for had many of the crew been there, there is no doubt that there would be some casulalties to report. How the helmsman escaped is a miracle, as the spars in falling crushed the wheel, but the man was untouched.

It was not long before all hands were on deck, and it was learned that the stern was considerably damaged and that the vessel was leaking. Fortunately the vessel was supplied with a gasoline engine, and it was soon at work and the vessel heading for Shelburne. Had it not been for the power the probability is that the vessel would have gone to the bottom with its crew of nineteen men as the weather was very bad. She had 60,000 pounds of fresh fish on board."

The Gloucester Times quotes yet another recent incident:—

"According to Capt. Peter Dunsky and crew of sch. Teazer, which arrived here last night, if it had not been for the powerful 65 horse power engine with which the vessel is equipped she would have been crushed to pieces and they themselves might have perished when their vessel was caught in the heavy ice off Scatterie.

The halibuter left here March 15 and fished on Burgeo bank. In a few days she had 40,000 pounds of fresh halibut aboard. So the skipper decided to start for home.

When 40 miles off Scatterie, the vessel ran into a blinding now storm and it was soon impossible to see the length of the vessel. The watch was doubled as a matter of precaution. The storm was at its height when the men on deck heard a sound that they all knew too well. It was the "crunch" of ice against the side.

All hands were called. In the meantime the noise of the ice was becoming louder, although it was impossible to see it. The vessel was tacked in an attempt to free herself from the menacing white fields. The attempt to escape was useless and soon the skipper and crew realized that they were in the midst of an ice field with perhaps no chance of escape.

When day broke, all hands realized their position. Ice was everywhere, with no open water in sight. Knowing that their only salvation lay in their engine, the order was given to "start 'er up." Slowly the vessel began to press on, while the ice towered above the rails and the water poured through the seams of the vessel, so that the pumps were constantly manned.

The vessel continued to force on through the fields, but still the crew dared not hope. Even after the vessel had started it looked as if the safest course might be to leave her and take to the ice. However they did not give up courage. For two days and a half the engine turned constantly and at last the men were rewarded with the sight of open water.

The Teazer's escape from the icefields recalls a similar experience of sch. Quannapowitt, then commanded by Capt. Daniel McDonald. The Quannapowitt on a trip to the Funks in July, 1913, was caught in the ice and was saved by means of her gasoline engine."

Both of these incidents are testimonials to the advantage of having an auxiliary engine and in the Pacific fisheries many similar cases could be mentioned where vessels have been saved through having power in addition to sail.

Modern progress demands speed in everything and the fishing methods of fifty years ago have no place in this present age. The demand for fresh fish in Canada is growing rapidly which means that supplies must be regular and dependable. If our fishermen wish to keep pace with the times and keep the English steam trawlers from invading their markets they must fish in schooners equipped with power.

CANADIAN FISHERIES ASSOCIATION.

The Nova Scotia Branch of the Association is to hold an organization meeting in Halifax on Tuesday, April 27th. Mr. S. Y. Wilson, First Vice-President of the Association will be in charge of the organization committee assisted by Mr. A. H. Whitman, Halifax, and Mr. W. P. Scott of Queensport. Mr. H. B. Short of Digby, one of the Nova Scotia Directors, is at present on the Pacific Coast.

The membership roll of the Association is steadily increasing—the prospects for a large membership before the next Director's Meeting in August being exceedingly bright. The membership fee of ten dollars is not an excessive one and enables the smaller dealer to come in on the same footing as the large corporations and concerns. A noticeable feature of the applications already received by the Secretary is their Dominion-wide character—the membership coming from the Pacific to the Atlantic.

All those engaged in the Canadian Fishing Industry who intend joining the Association and assisting in the work of promoting and developing our fisheries are requested to send in their applications and fees as soon as possible to the Secretary. Copies of the Constitution and By-laws and all particulars regarding the Association will be cheerfully sent upon request.

Our British contemporary, the "Fishing News" contains the following editorial regarding the Association:

"At such a crisis in our imperial destiny as is the present, our colonies and ourselves become knit, the one to the other, with more closely-binding ties. Their interests become ours in a more marked manner than during times of tranquillity and peace. It is little surprising then that there should be a greatly increased interest in and knowledge of the fisheries of Canada in this country at the present time.

This interest has been quickened and accentuated largely by the coincidence of two facts—the curtailment of our own fisheries at home by the war and the swift expansion of those of the Dominion. This latter expansion has been due almost wholly to internal causes—to generally wider acknowledgment of the value of fish as a food with a consequent larger demand, to improvement of methods and the better organization of fishermen, and to the necessity for supplying a substitute for the diminishing numbers of cattle as a source of food supply. But another stimulus, that of increased outside demand, is also largely accountable for the improvement, markets for fish being readily offered both in belligerent and neutral countries, until supplies of British Columbian halibut are becoming in our markets almost daily less rare. The fisheries of Canada have been exploited for over two hundred years. Indeed the colonization of the country has been due very largely to the prolific fishery resources of the waters round the American continent, drawing the mariners of Europe to the Eastern shores in great numbers. Yet though long established the Canadian fisheries have been carried on as isolated enterprises with varying individual success more than as a national industry. There has been markedly absent any organized effort to work for a common purpose for the good of the industry as a whole. Now in recent years, and increasing so with each year, the development of the fishing industry has brought before the notice of those participating in it very many difficult problems, problems which no particular section or interest of the industry could be expected to solve alone. It was this fact chiefly that led to the idea of establishing a Fisheries Association to superintend the interests of fisheries over the whole Dominion. This idea was wholeheartedly supported, and was crowned with success last month, when representatives of the fishing industry all over Canada met in Ottawa and inaugurated the Canadian Fisheries Association. The scope of the work of the Association is necessarily wide and somewhat vague, but from this very fact its powers will be correspondingly greater and less hampered. "To promote and develop the fisheries of the Dominion upon commercial, scientific and educational lines" is broadly the end of the Association. One can see that such a programme harbours vast possibilities, and also that the application of methods of scientific organization to so fruitful a field as the Canadian fisheries is bound to have the most beneficial effects in the future."

CANSO'S ISOLATION.

An old adage says "Trade follows the flag." Nowadays it should be corrected to "Trade follows the rail." The development of a country begins with the railway surveyors and the construction gangs.

Canada is a country where the twin steel rails have done more to prosper the Dominion than any other factor. In this land of magnificent distances we have a bounteous inheritance of forests, mines and farming areas. All of them were undeveloped and practically unworkable until the railroads came and linked supply with demand.

Canso, in Guysboro County, N.S., is not a mushroom town of recent growth. It is one of the oldest settlements in Canada, and came into existence because of its proximity to the great fishing Banks of the North American Coast. Large quantities of fish are shipped to all parts of Canada from Canso and great fleets of fishing craft use the port for harbor and the purchase of supplies, yet Canso has been denied railway facilities throughout the years it has bravely struggled to keep pace with the progress of other towns with less to recommend them.

In this age it is unthinkable that a centre like Canso, where so much lucrative business can be got for transportation by rail, should be neglected while millions of dollars are invested in laying railroad lines into territories which will never pay the interest on the cost

of construction. The agricultural interests of the West got the Hudson's Bay Railroad built to further an idea of grain transportation which is exceedingly ephemeral. It is still more unthinkable when one considers that Canso is asking but for a few miles of railroad to link the town with the markets of the West.

Mr. Cecil Boyd in his article in the present issue of the "Canadian Fisherman" presents the case for Canso very clearly and its statistics show the "splendid isolation" of Guysboro County. The construction of the railroad has been advocated for years, but up to date it has been staved off by promises which never materialized.

The resources of the county are being strangled by the lack of railway facilities and realizing this handicap as far as the fisheries of the district are concerned, we would advise every resident of Guysboro County to co-operate with each other and through their Parliamentary representatives demand that the Government railway be extended to the eastern limit of the county. The whole future of the district depends upon the railroad and those vitally interested should not rest until their request is granted.

PISCATORIAL PARAGRAPHS.

Mr. H. C. Walby, of the Canadian Fish & Cold Storage Co., Ltd., Prince Rupert, B.C., was in Montreal recently, on his return from a trip to Norway. Mr. Walby states that the sympathies of the Norwegian people are all with the Allies and the general opinion of the continental nations not involved in the war is that Germany is sure to be defeated, and deserves all she gets. While a passenger on a Scandinavian-America liner, Mr. Walby says the ship passed through numerous mines in the North Sea and British warships seemed to be everywhere. The German submarine blockade, in his opinion, was a farce and was not regarded as serious by either Britain or the Scandinavian countries.

* * *

Mr. H. B. Short, Manager of the Maritime Fish Corporation's Digby branch, passed through Montreal last week on a visit to British Columbia and the Panama-Pacific Exhibition.

* * *

Dr. John Hjort, Director of Fisheries for Norway, was in Montreal recently, and had an interesting talk with Mr. D. J. Byrne, President of the Canadian Fisheries Association. Dr. Hjort is the inventor of a process for freezing fish by immersion in brine, and it is claimed that the process will freeze fish three times as quickly as the orthodox air system of freezing. A large cod can be frozen in an hour and smaller fish in a lesser ratio of time. Fish thus frozen can be sliced with a saw. Dr. Hjort has been loaned to the Canadian Government, and will spend the summer making investigations on the fishing grounds off the Nova Scotia coast and in the Gulf of St. Lawrence.

* * *

Mr. E. C. Whitman of Canso, N.S., was in New York recently, and attended a demonstration by Dr. Hjort of his fish freezing process.

* * *

The Halifax Board of Trade have placed themselves on record as being in favor of extending the modus vivendi privileges to United States auxiliary fishing craft. The priveleges of the license have been granted to American fishermen on the Pacific coast, and the Board considers that the same should apply on the Atlantic. The concession would undoubtedly bring much good business to Maritime Province ports.

* * *

There seems to be plenty of halibut striking on the Atlantic grounds. American halibuters have been bringing in good trips from Western Bank, and from the grounds south of Newfoundland. Two Digby halibuters have fitted out and sailed for the grounds this month.

* * *

The American seining fleet have struck the fish, according to advices received. Captain Lem Firth, a Shelburne County skipper, in the Rob Roy, brought the first trip of 44 barrels into a southern port. Capt. Frank Hall in the schooner Ralph Hall, brought a trip of 20,000 mixed mackerel into New York, on April 9th, which sold for 18 cents apiece. The twiners have struck the schools thirteen days earlier than last year, and the prospects are good for a big catch this season, when the fish head up the Nova Scotia coast.

* * *

The statistics of fish landed in England and Wales for February show a falling off compared with the previous year. Some 387,704 cwts. valued at £473,062 were landed. In February, 1914, 570,811 cwts. were landed, valued at £586,130. The war is responsible for the shortage. During the year ending February, 1915, fish to the value of $20,036,980 were exported to other countries from Canada.

* * *

Since the days when the first colonists came from England and settled on the New England coast, there has been a Parkhurst in the fish business of Gloucester. That covers a considerable space of years and a good many generations, and it speaks well for both Gloucester and the family that there is a modern representative doing a thriving fish business in the old town to-day. Mr. P. C. Parkhurst commenced his business education in fishing and fish at an early age, with a natural instinct inbred by ancestral tendencies in that direction. He studied the trade in the only practical college—that of experience—and worked personally in the culling, buying, smoking, curing and preparing of fish for market. He has graduated in all branches of the fish business from fitting out ves-

sels for all varieties of fishing to selling the fares in the inland markets. To-day, the firm have their own wharves and warehouses and can handle anything that swims. Mr. Parkhurst does a large Canadian business in handling consignments, and has made many friends in Canada by his courteous and genial personality and his methods of doing business. The "Canadian Fisherman" is pleased to number Mr. Parkhurst among its many friends.

* * *

Captain J. A. Farquhar, whose article on the Sealing Industry appears in this issue, commanded his own ship in the voyage to the ice this Spring. The sealing venture this year has been a very poor one, though happily unattended with the terrible loss of life which marred the season of 1914. Though not a lucrative trip from a pecuniary point of view, yet we feel sure that the genial Captain enjoyed the voyage with the zest for adventure and "taking a chance" which is part of his nature.

NORWEGIAN FISHERIES.

The report of the Commercial Agent at Norway says that the Norwegian fisheries in 1914 yielded very good returns. The yield of cod amounted to 81,400,000 cod as against 76,000,000 in 1913. The fishery for large herring on the west coast yielded 219,133 crans, against 280,000 crans in 1913. On the southeast coast the large herring fisheries was a failure. The spring herring fisheries yielded 707,800 crans, as against 1,000,000 crans in 1913. The North Sea eherring fisheries have a yield of only 3,013 barrels.

CANADIAN POTASH COMPANY FORMED.

The Canada Potash & Algin Co., Ltd., has been incorporated in Canada with a capital stock of $100,000, for the purpose of working British Columbia kelp.

A SPORTMAN'S PARADISE AT THE PANAMA-INTERNATIONAL EXPOSITION.

Found—the sportman's paradise. It has been located in the United States Bureau of Fisheries exhibit at the Panama-Pacific International Exposition, at San Francisco.

Every fly, every spoon, every kind of tackle yet devised to entice the carp, the trout, the tuna, or the whale is included in this great exhibit.

Many ingenious traps for the gathering of market fish are also there, but not to delight the sportsman.

Also, the exhibit includes little models, perfect in detail, of about every kind of fishing smack, fishing dory, schooner, and whaler aver devised.

Finally, the exhibit includes a mighty array of whaling instruments — whaling guns, harpoons, harpoon-bombs, darting guns, pikes, hand-lances, boarding knives, mincing knives, and cannon.

The fishing boats on display include a gill net steamer, a pound net steamer, a Chesapeake bay "buckeye", leg-of-mutton rigged; fishing schooners of all dates for the last five generations.

This exhibit is against the west wall of the Palace of Food Products, and requires a couple of hours for anywhere near proper perusal.

Everything is in ship-shape style. There is nothing unfinished. It is all there, waiting to be seen.

The new Pickled Fish Inspection Act goes into effect on May 1st. It is to be hoped that the principles laid down in the Act will be lived up to by fishermen, curers and packers. It will standardize the pack and elevate it to a higher and more remunerative plane.

1915 MAY FISH DAY CALENDAR 1915

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
-	-	-	-	-	-	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23 30	24 31	25	26	27	28	29

May 26th—EMBER DAY

SOME RAILWAY REMARKS

Being a Plea for Justice as Regards Transportation Facilities, on Behalf of a Much and Long Neglected Corner of our Common Country.

By CECIL M. BOYD.

A mere glance at the map, which heads this article would be sufficient to impress even the most unobservant with the coign of vantage possessed by Eastern Nova Scotia (especially the Port of Canso) in relation to the prolific fishing-grounds of the Atlantic. A closer study will drive that impression deeply home. Like a great natural wharf, Guysboro County runs out in close touch with the favored haunts of the saltwater schools. Canso and vicinity was one of the earliest fishing centres of the New World, a choice favorite of discerning pioneers, as shown by the writer in the December, 1914, issue of the Canadian Fisherman. Fish have been the foundation of whatever degree of prosperity the Eastern coasts of Nova Scotia has enjoyed, and, in view of backward carrying facilities, in view of the comparative isolation of this section, the degree of prosperity achieved has been remarkable. Statistics of Guysboro county's fishing industry during the last decade, showing as they do a steady progress bear witness to this fact. But the time is at hand when more adequate transportation facilities are an imperative necessity, if development is to reach its full promise and possibility. Good rail and other connections with the outside world are essential nowadays to the thriving of a fishing port or coast section. Capital seeking investment in the fishing industry is more likely to be attracted to such a place in preference to one possessing equal or even superior natural resources.

As an illustration of how beneficial railways are to a fishing centre, let me quote the following paragraph from the Fish Traders' Gazette, of July 29th, 1911. It refers to the "old-Country" port of Grimsby, chiefly known locally as the home port of most of the trawlers which have been coming this way of late years, and for which our shore fishermen have little love, and it reads as follows:—

"It, was, indeed, the advent of the railway which gave the impulse to the development of the port and of the fishing, for in the year 1854 the fish brought into Grimsby only amounted to 450 tons, whereas it now borders upon 200,000 tons. But Grimsby is much more than a fishing port—a fact which some of us are inclined to forget. As with all other great ports which are primarily fishing places, the fishing brought in its train a host of allied industries and developed an overseas commerce. How great the latter has become is indicated in the figures, which show that in 1855 the total value of the goods exported amounted to $1,405,146, while in 1910 the value had risen to $18,956,924. There is little doubt that the opening of the Immingham Dock will be followed by a further great expansion of business. The dock will have very special facilities for shipping, not the least being that it may be entered at any hour of the day or night, and at any state of the tide with direct transhipment from ship to rail, and rail to ship by the most speedy and economical methods."

I might further illustrate, by other testimony, what an essential factor to the development of our coast fisheries good rail connections would form, but I hesitate to trespass on the space and patience of a kindly editor. Anyhow, the point scarcely seems to need much laboring. It must surely be evident to anyone giving thought at all to the matter, how important is the relation between the two.

Now when one who has learned to appreciate the value of transportation to trade and development considers also the richness of this section in latent natural resources (and these are not only offshore but inland); then it is that the still-belated introduction of the iron horse into this region, is recognized as a thing so greatly to be deplored.

Here is a table, interesting and I presume accurate, having been compiled by one of our M.P.P.'s about two years ago, giving the railway mileage of each country compared with the county area:—

County.	Miles of Railway.	Area in sq. miles.	Area for each mile of railway.
Halifax	162	2,123	13
Cumberland	149	1,683	11
Annapolis	122	1,323	10¾
Cape Breton	115	966	8
Pictou	108	1,124	10
Lunenburg	105	1,202	11
Colchester	90	1,451	16
Inverness	89	1,408	15¾
Shelburne	85	920	10¾
Hants	85	1,229	14½
Kings	59	864	14½
Digby	55	1,000	18
Queens	54	1,102	20
Yarmouth	50	858	17
Antigonish	43	556	13
Richmond	36	489	13½
Victoria	10	1,111	111
Guysboro	7	1,656	236

What food for reflection there! Guysboro, one of the largest counties in area, boasts the magnificent sum total of 7 miles of rail on the very edge of its limits, while Cumberland, the nearest in size to Guysboro possesses 149 miles, running through the heart of the county. While every other county, except Victoria, may boast of a mile of railway for each 8 to 20 square miles of area, poor old Guysboro rejoices in a single mile of rail to each 236 (repeat, 236) square miles! While transcontinental railways, Provincial lines, branches and stretches of rail here and there have become accomplished facts, throughout the length and breadth of Canada, one of the oldest settled sections of this Dominion languishes for lack of adequate communication with the world at large.

When I first looked over the table given above I was astounded at what I may call its silent eloquence. I was flabbergasted (pardon the slang!) but not so much at Guysboro's actual lack, for I knew quite well that our district's acquaintance with the iron horse had always hugged the zero mark closely; but what did greatly surprise me was this, that the rest of Nova Scotia should have so much, while Guysboro county had so little! When one looks at facts like the foregoing, it seems as though Guysboro County in the matter of transportation, were the Cinderella, or neglected one, of the Provincial family. We are not looking, however, for a fairy godmother, to shower special favors upon us, but only ask for evenhanded justice, or in modern parlance, a square deal. It is surely high time that something were done to remedy the situation.

In this necessarily very brief and imperfect survey, I have referred almost altogether to the fishing industry, as other matters are outside the Canadian Fisherman's bill of fare; but the farming, mining and other resources of this Eastern Nova Scotia district are surely rich enough to become profitable railway feeders.

P.S.—Since writing the above, I have read several reports to the effect that money has been voted in Parliament, for the building, of an I.C.R. branch line to Guysboro. Such a line would be incomplete until extended to Canso, an extension which would sooner or later be bound to follow as a matter of course. Let us hope that the adverse fate, which has for so long followed this project (chiefly, perhaps, on account of it having been made a political football), is at last to be conquered. In the past, surveys have been made, and contracts signed followed by a full stop; may the near-future see construction carried to a successful conclusion. Such is the writer's sincere wish.

THE SALMON HATCHERY IN THE FOOD PRODUCTS PALACE AT THE PANAMA-PACIFIC INTERNATIONAL EXPOSITION.

The silver salmon is the most ambitious fish alive. He is born with the instinct for making his way upstream. He lives for that instinct. He dies with it. Frequently, on account of the ingenuity of man, he dies because of it.

In the Palace of Food at the Panama-Pacific International Exposition, at San Francisco, is a hatchery operated by the United States bureau of fisheries, in which various stages of the life of the silver salmon are revealed. In all, he is about nine months reaching the maximum size shown in this exhibit.

In the course of his career the silver salmon's ambition to work himself up-stream is shown.

The exhibit contains a "fish-ladder", with six steps. These steps are little basins of water, each higher than its predecessor, and with a strong current leaping down from top to bottom. As the salmon grow, they hurl themselves up this ladder, and so into the top basin. It is a device for selecting the strongest and fittest salmon.

In the Columbia river there are many water wheels which the current turns, and into which the fish work their way, to be scooped up into barges and hauled to the canneries. At this exhibit is a small water wheel. The salmon flounder into this, but merely take a ride. It is a sort of "squirrel cage", which lands them safely in the water again.

This exhibit is interesting because of its attention to detail. It has a courteous and efficient lecturer in charge. It is on the east side of the building.

NEW LUNENBURG SCHOONER.

There was launched from the shipyard of Smith and Rhuland recently, another fine schooner called the Tipperary. Quite an acquisition to our fishing fleet. The owners are Reinhardt Bros. Capt. Jas. Walter and others. Her dimensions are, length overall 108 ft., depth of hold 9½ ft., beam 24 ft., measuring 90 tons. Capt. Walter will command her.

THE SEAL FISHERY

By CAPTAIN J. A. FARQUHAR

The seal fishery which has been such a prolific source of wealth to the Colony of Newfoundland for the past ninety years was first prosecuted by very crude and imperfect methods. The cod fishery has always been rightly regarded as the great staple industry of the Island, the back bone of the Colony's commercial life, and in the early ages of its history scarcely any other business or occupation was regarded as feasible. The abundance of cod fish swarming around the Coast in summer time, and the facility with which large harvests could be taken from the sea with but little outlay and little or no risk whatever, induced the people to give their undivided attention to this industry. There can be no doubt that one reason why the seal fishery developed and expanded very slowly was because it was realized that the enterprise could not be engaged in without great risk and hardships. Every year the vast icefields that drifted southward brought immense herds of seals almost to the doors of the resident population, and yet the teeming mammals with their affectionate progenitors were left in their icy habitual undisturbed by the ruthless and daring hunter with knife and club and gun. The evolution, however, went on; the industry developed from one stage of progress to another, though very slowly, until the scene became all changed and the thousands of intrepid sealers engaged in the enterprise since their simple endeavour to rival each other in the mighty carnage crimsoning the immense ice-packs with the blood of their slaughtered victims. Seals were first captured by the use of nets which were set or moored at right angles with the shore. The seals moving southward in the early part of winter to meet the icefloes upon which to have their young, would instinctively go in shoal water in quest of fish food, and this would sometimes lead to their capture but in very limited numbers. Historic records inform us that previous to 1763 English fishermen took seals in this manner, and the same method is still employed on the northern shores of the Island, and on Labrador. It has sometimes happened in the past that young seals, in very large numbers have been taken from the shore. This circumstance invariably occured when there was a prevalence of easterl ywind pressing the ice with its abundant harvest of "White Coats" in on the land where vessels could not reach them. A remarkable instance of this ocured in 1894 when it was estimated that 120,000 seals were taken by residents along the Coast from ice contiguous in the northern bays and headlands. On such occasions as this, men, women and children with dogs and catamarans display great fearlessness and activity sometimes even risking their lives in purpuit of the coveted spoil presented to their vision. The progress of the seal fishery in these early years is shown by the returns furnished the Board of Trade by the Admirals Commanding the Newfoundland stations. These returns refer to Seal Oil as an article of export for the first time in 1740, when its value for the year was put down at £1,000 sterling; in 1767 the Seal Oil exported had advanced in value to £8,832 and in the following year to £12,664, in 1772 the value of seal oil exported was £13,406. The largest export mentioned in these returns indicate that the yield of Seal Oil was unsteady sometimes going down to £3,000 and only once excelling £11,000 in value. The last of these returns was for the year 1792 when the value of Seal Oil exported was £11,920. The next method adopted for taking seals was that of shooting them from large boats which sailed on their voyage about the middle of April, when the seals had taken to the water. This was a hazardous and not by any means a successful method. As late as 1796 the whole annual catch only numbered 5,000. Then came a new advance and a new area of prosperity. The hardy toilers of the sea became more daring by their frequent visits to the icefields. At length large vessels were built with special adaption for the Seal Fishery. These vessels increased in number and were made more suitable in construction for contending with the ice packs from year to year and soon prosperity abounded. In the year 1840 over 900,000 quintals of Cod fish and over 600,000 seals rewarded the industry and enterprise of the people engaged in these fisheries. The Seal Fish-

S. S. SABLE.—A CANADIAN SEALER.

ery as carried on by sailing vessels afforded the people of the island abundant means of employment throughout the months of winter. The procuring of timber from the woods, building vessels, repairing those already in use, building punts, procuring firewood, gaffstones, pokers, oars and other material left nobody with an excuse for being idle, and when the 25th of February arrived and the Sealing Crews went in Collar, all was rush and activity until they sailed with great demonstration for the Icefields on the first of March. In 1857 there were 400 sailing vessels of from 70 to 200 tons engaged in the seal fishery; their crews numbering 13,000 men. The average annual value of the industry at this period was from one to one and a quarter million dollars. In the year 1863 steam was first employed in prosecuting the seal fishery. Two comparatively small steamers being sent to the ice by Walter Grieve and Company, and Bain Johnson and Company, the great innovator. Steam did not meet with popular favour, but its great power and usefulness in contending with heavy ice-packs had been amply demonstrated and the number of steamers went on increasing from year to year, until by a gradual process sailing vessels were forced out of the business. In 1866 there were 177 sailing vessels and five steamers; in 1873 there were 18 steamers; in 1882 there were 25 steamers and at the present time there are 24 steamers engaged in the industry and only three small sailing vessels.

ON THE ICE: Crews bringing in seal pelts.

SEALS.

CUBAN MARKET CONDITIONS.

A report on market conditions in Cuba for certain products is issued each week by the firm of Enrique R. Margarit, S. en C., 66 San Ignacio Street, Havana, Cuba. Some notes concerning products likely to be of interest to Canadians were taken from the report of this firm dated February 19, 1915, and published in Weekly Report No. 580. In order that this information may be supplemented and brought up to date it has been considered of value to submit the following notes taken from a similar report dated March 19, 1915:

Fish in Drums.—The active demand for fish in drums which has been in evidence during the past few weeks has been maintained. The importations have in large part been made up of hake. This fishstuff has therefore declined in price, while codfish and haddock remain unchanged. Codfish is quoted at $8.50, haddock at $7.75, and hake at $6.25 per 100 pounds. Recent importations have been as follows:—

March 15, per ss. Mexico	223
March 16, per ss Esparto	128
March 16, per ss. Havana	225

Codfish in Cases.—The ss. Mexico on March 15 brought 415 cases of codfish. Although the demand has recently fallen off and stocks are small, the same prices prevail because a heavy shipment is expected. gian variety and $11 to $12 per case for cod and other sources.

Herrings.—A good demand continues for bloaters and sales are being made at $1.37 per large box.

Connecticut oyster growers state that the oyster business this season has been the poorest in years. The volume of trade has been about 60 per cent of the normal. A poor crop; general business depression; mild weather and the disparagement of the bivalve by the health authorities has been given as reasons for the slack demand.

THE SAILING OF THE MINE SWEEPERS

THE BRITISH FISHERMAN'S WORK IN THE WAR

"Somewhere in England," since seven o'clock of a chill, misty morning. women, girls, children, and a few grey-bearded fishermen have been standing in little groups along the quays beside which the dingy, slate-hulled mine-sweeping trawlers are moored. The sentries and policemen on duty on the grimy wharves seem to know that this morning they may ignore the presence of many loiterers who have no right to be there "except on business," and they themselves watch with interest the stir going on in the harbor. On the deck of a Belgian gunboat, which is probably one-half if not the whole of the Belgian navy, some sailors, wearing white trousers and round caps with little blue tufts on them ,are smoking cigarettes and peering across the water through the fog. Near by lies a British gunboat, and an old fisherman points out to a little girl who holds his hand a patch on one funnel covering a hole made by a German shell. Further away, and vaguely seen through the mist slowly drifting down the river, there are rows of deserted Ostend trawling smacks still lying where they were moored months ago, after they had landed their thousands of half-starved, storm-drenched refugees. Up and down the channel a little motor launch—she was a racing boat of some repute before she was commandeered—is scurrying, steered by a naval officer whose head is hidden in a Balaclava cap. At the harbor mouth a patrol boat hoots before disappearing round the pier-head. Under a rusty derrick a newsboy, carrying a bundle of morning papers, shouts "Mine-sweepers at work in the Dardanelles" in the intervals between his attempts to jump and swing on the hook at the end of the derrick's chain.

Crowded With Mine-Sweepers.

The harbor is almost crowded with mine-sweepers. For months they have been going out and coming in—six or eight together—on their way to or from the enemy's minefields, but not for months have so many been moored, two and three deep along the quays. A week ago only the usual number were in, awaiting their turn to go out sweeping. They are still here, and day after day more have been summoned from other ports and the trade routes, and in the shipyards, where they are refitted, work has been going on day and night. "What is happening? Why are they all here? Are there no more mines to be swept up?"—these and similar questions have been repeatedly asked, yet no one can give a satisfactory reply to them. But stay! Here is an old ship's watchman talking to the crew of a trawling smack. He seems to know all about it. Hear what he has to say. "You can take it from me, 'tis true," he says, emphatically. "My boy is cook on No. 2148—she was the Gleam before they took her over and numbered her—and he heard an officer tell the skipper. They're all going to th' Dardanelles. They've taken aboard provisions for —— weeks or more. That's true, you can take my word for it." Another man, standing near by, "corroborates" the watchman's statements. He, too, knows someone who heard a naval officer say they were going to the Dardanelles, and he adds, "They're going from here to ——, and then round into th' Mediterranean. It'll take 'em a fortnight to get from —— to Turkey.

Going to the Dardanelles.

When these loquacious ones have gone I ask the smack's skipper for his opinion. I know him too well to be deceived by his nods of agreement while listening to the watchman's and the other gossip"s tales. He is in no hurry to reply, but having seated himself on the trawl-beam, knocked the ashes from his pipe carefully overboard, and put the pipe in his trousers pocket, he remarks deliberately that "They're jist —— fules. I reckon they think th' Dardanelles are somewhere up in Iceland or round by the Rockhall Bank. Their heads are all mouth. Think for yourself, mister. Why have th' French sweepers joined ours here this week if they're all going to th' Dardanelles? Don't commonsense tell you they'd join 'em on th' way if they were going there? And do you think th' Admiralty didn't see to it that there were plenty of sweepers in th' Mediterranean before our ships went in among them Turks' forts? I don't know where these here sweepers are going. Th' men aboard them don't know either. But I know this— if th' naval officers say they are going to th' Dardanelles they aint going there, for when th' sweepers did go to th' Dardanelles th' officers said they were going round to Ireland. I can guess where they're going, and so can you, and I daresay most of th' men aboard 'em have their opinions, too, but none of us know. Howsumdever, I reckon we'll know something about it afore very long."

"So Long, Mother."

An hour or so later the sweepers begin to cast off their moorings, swing out into the tideway, and drop slowly down the river. The watchers on the quays make a rush for the piers near the mouth of the harbor. Handkerchiefs flutter, little flags are waved, and cheer after cheer is drowned by the hooting and buzzing of the sweepers. Now and again there is a shrieking wail from a syren, ending in a yelp that cuts through the air like the lash of a whip. One by one the sweepers come looming down towards the crowds on the piers. Their names are obliterated from their sides, but the women and even the children know them, and every minute three or four handkerchiefs or flags are waved more frantically than the rest because "There's Jack!" or "Here comes daddy's boat!" A listener on the piers hears a curious mixture of dialects, for these mothers, wives, and children have come from far and near—from Aberdeen, Grimsby, North Shields, and other ports—to say "Good-by"' to their sons, husbands, and fathers. Few tears are shed, but who can say how many eyes are dimmed by tears unshed? Everyone here knows now the risks of mine-sweeping, but nearly everyone is laughing, and many jokes are bandied between boat and pier. "So long, mother; I've got th' muffler, you see. Makes me look smarter than th' commodore." "Fare-ye-well, lass. Mind what yer up to while Ah'm away. Ah may be back afore ye expect me." "Good luck, Jim. Don't let your wife ketch you bringin' home one o' them Turkey gals." Packets of tobacco and bundles of cigars are flung on to the sweepers from the piers. Now and again an old horse-shoe, decked with red, white and blue ribbons, is thrown and, falling on the deck of a boat with a ringing clink, is picked up and fastened to wheel-house or mast.

The Commodore's Boat.

The leading sweeper is at the harbor mouth, and her cone is run up for "Full speed ahead."' Her hooter sounds the mine-sweepers' challenge. "Cock-a-doodle-do!" It is repeated by the other boats, and for a few minutes everyone is deafened by just such a din of whistle blasts and syren whoops as alarmed the town at midnight of Old Year's Eve, when timid folk believed the Germans had landed. In turn the sweepers pass out of sight round the pier head, the last to disappear being the commodore's boat, a fine large steam trawler flying both the White and Red Ensigns. Again we who have been watching them from the piers ask each other "Where are they going?" We do not know. Even the commodore in command of them will not know until he is twenty miles from port, perhaps, and open his sealed orders. The one thing we are all sure of we say little about. It is that they will not all come back! Not all those who went out to take part in the great Scarborough sweep came back. Not all those who are sweeping in the Dardanelles will come back. Which are the boats, who are the men, we have seen this morning for the last time? Truly, the fishermen, as they say, are "doing their bit," and they are doing it so well that who six months ago were just ordinary fishermen are now sub-lieutenants in the Royal Navy. As times goes on the names of the fishermen who are giving up their lives for England may be forgotten, but it will be long before we forget the work they have done and are going to do.—W. A. D., in "The Manchester Guardian."

EUROPE'S FISH SUPPLY.

One of the most important and hitherto undiscussed elements of the famine which has become a bitterly significant phase of the war, and which according to innumerable reports, is growing steadily in various countries of Europe, is Europe's endangered fish supply. For much valuable information upon this subject we are indebted to William Joseph Showalber who writes in the National Geographic Magazine at length.

With its war zones and counter war zones, its mined areas, its hostile fleets, and its heavily defended shores, the North Sea, in a few months, has been transformed from one of the richest food-producing areas in Christendom into a region upon whose mastery may depend the starvation of one or the other of two of the mightiest nations of the earth. In times of peace no other like area in all the seas ever has given to humanity such rich supplies of food as this narrow strait separating Albion from the continent of Europe. During the year previous to the present war, a million and a quarter tons of fish were taken here, enough to fill a procession of fish trucks reaching across the United States from New York to San Francisco via New Orleans.

Just how serious this food shortage caused by war's embargo of peaceful effort in the North Sea is, and may become, we in America, for whom fish forms such a minor part of the daily diet, can comprehend only with difficulty.

Europe has depended very much on these fisheries for fish supplies. More than half of all the fish produced in all the waters of Europe are caught within the limited territory that constitutes the North Sea fishing grounds. How much they are depended upon is shown by the fact that Great Britain annually absorbs 1,000,000,000 pounds of North Sea fish; that means 22 pounds per capita. And while this is small in proportion to her per capita meat consumption of 119 pounds, yet it is that margin which represents the difference between a bounteous plenty and positive hunger unless other foods can be secured to take its place.

Germany's dependence upon North Sea fish production is much the same as Great Britain's while the dependence of the north countries, of France, Austria-Hungary and Russia is even greater, according to this writer, who explains that investigation reveals the fact that as meat becomes less and less important in a nation's dietary, fish becomes more and more important. Great Britain and Germany are shown to be the great meat consumers of Europe, with respective per capita consumptions of 119 and 113 lbs. France had a per capita consumption of 80 pounds, Belgium 70, Austria-Hungary 64, and Russia 50.

Moreover, a closed North Sea has thrown out of work a hundred thousand Englishmen who manned the steam trawl, the drifter and the sailing boat, together with tens of thousands of German, Dutch, Danish, Scandinavian, Belgian and French fisherfolk. While all supplies of fresh fish are dwindling to negligible amounts and while little provision is being made for future supplies of dried and salt fish, it is to be presumed, the writer says, that the warring nations had considerable quantities of preserved fish on hand at the outbreak of the war. The vast proportion of fish consumed in Europe is salt fish, and it forms the mainstay of the larders of the poor. But for the salt herring, there are thousands of families in England and on the continent who would very rarely know the taste of fish.

Grimsby is the fishing capital of the world, with an annual output of perhaps 300,000 tons of fish. More than 600 steam trawlers operate from this port in time of peace, and a special harbor has been built for the fish trade, including an outer basin of 12 acres, and an inner basin of 15 acres, and two dry docks. And Billingsgate is the world's greatest middleman's fish market, handling the more than one million and a half pounds of fish that is consumed every day by the city of London in normal times.

America need fear no North Sea dilemma in connection with its own high seas fishing banks, because, thanks to the great American-originated system of fish culture, we are able to go on drawing a larger part of our fish diet from our inland streams and lakes.

STEAM TRAWLERS MUST FISH 12 MILES OFF SHORE.

An order-in-council has been passed in regard to the regulations governing the clearance of steam trawlers from Canadian Atlantic ports. It is provided that the master of every steam trawler calling at any port on the Atlantic coast of Canada shall, before departure, come to the collector of customs or other proper officer, and deliver to him a report as to the destination of the vessel, the tonnage, number of the crew, and any other particulars which shall be required.

This report must be accompanied by an affidavit from the master, stating that, in consideration of clearance papers, he will undertake to restrict all fishing operations to waters which are at least 12 miles distant from the nearest Canadian shore. The penalties provided are the same as those which obtain in the case of any contravention of the customs regulations.

THE CANADIAN FRESH SEA FISH TRADE

A resume of what the Department of Marine and Fisheries has done to encourage the sale of fresh sea fish throughout Canada, together with certain suggestions for future work.

By ALLAN DONNELL.

Assistant Editor, Commission of Conservation.

It was not until 1906 that any organized effort was made by Canadian interests to supply the markets of Ontario and Quebec with fresh sea fish. This was due in part to the fact that such important American ports as Portland, Gloucester and Boston were considerably closer to Montreal, Toronto and other centres in Ontario than are Halifax and Mulgrave. This gave the American shippers the advantage of better express and freight rates which enabled them to overcome the duty of one-half cent (later raised to one cent) a pound. Not only that but the Canadian Atlantic fisheries were carried on for the most part during the summer months only. This made the shipment of fresh fish without refrigerator cars all but impossible. Consequently, the dealers in central Canadian cities found it to their advantage to secure fresh fish from American ports where the service was steady and reliable.

In 1906, however, certain Nova Scotia fish dealers made arrangements with the railway companies for a Saturday cold storage car between Mulgrave and Montreal. This service is still in operation and results in the marketing of large quantities of fresh fish in Quebec and Ontario. In September, 1907 the Department of Marine and Fisheries entered into agreements with the Intercolonial and the Halifax and Southwestern Railways, which provides for the attachment of refrigerator cars for fish to the fast freight trains leaving Halifax on Saturdays and Mulgrave on Mondays for Montreal. This service was undertaken on the understanding that the Department guaranteed the railways that on each trip west these cars would earn at least two-thirds of the regular charge on car-load lots of 20,000 lbs., in addition to costs of icing at minimum carload rates. The freight service guarantee cost the Department $208.37 during the fiscal year 1907-1908. The following year, the first full year that the plan was in operation, it cost $1,943.89. In 1909-1910 the guarantee was reduced to $481.29 after which the service became self-sustaining. Since 1911, however, it has not been much used from Halifax, as the express service meets the requirements of that point better.

A freight service is likely to be slow and uncertain and to offset this the Department in the spring of 1908 arranged for an express service. This arrangement provided for a refrigerator car to be attached to the Marine express one day a week to transport fish at a rate of $1.00 per 100 lbs. from Halifax and $1.05 per 100 lbs. from Mulgrave to Montreal. The service did not prove popular, however, and was soon discontinued. Its failure was probably due in part to the fact that it was limited to one day a week as well as to the necessity for the consigner taking charge of shipments at the car. In the autumn of the same year new arrangements were made with the express companies whereby one-third of the charges on shipments to points as far west as the eastern boundary of Manitoba were to be met by the Department. This gave a rate of $1.00 per 100 lbs. from Halifax and Mulgrave to Montreal. The plan proved to be very successful and resulted in great increases in the sales of Canadian fresh sea fish in Ontario and Quebec. Coincident with this there was a decided falling off in the imports of fresh fish from the United States into these provinces. Thus, in 1906, the imports in question amounted to 1,968,572 lbs., in 1908 it had fallen to 1,180,543 lbs. and in 1910 to 761,569 lbs.

It is obvious, however, that the ordinary express service has distinct limitations when used for the transportation of fresh fish. Hot weather in summer and the fact that the regular cars are artificially heated in winter tend to make them unsafe for such a purpose. Refrigerator cars are not only an advantage but practically a necessity. Last year a limited refrigerator express service was started from the Maritime provinces to Montreal. A refrigerator express car leaves Mulgrave on Saturday of each week and shipments from Halifax are consolidated in this car at Truro. In addition to paying one-third of the ordinary express charges on shipments forwarded in this car, the Department has guaranteed the express companies that the earnings will be at least those on 10,000 lbs. of fish on each trip west.

he fresh fish trade of the Pacific coast is also expanding rapidly, the halibut trade being in an especially thriving condition. Credit for this is probably partly due to the requirements of the American markets. The growing scarcity of halibut coupled with the difficulty of securing winter supplies on the stormy Atlantic coast led certain New England fishery interests to attempt the exploitation of the halibut fisheries near Queen Charlotte island off the British Columbia coast. This fishery is now one of the most flourishing halibut fisheries in the world. The opening of the Grand Trunk Pacific will serve to enlarge the market, and it is of interest to note in passing that the first carload of halibut from Prince Rupert, over the Grand Trunk Pacific, reached Toronto the first week in October, 1914. An extensive carload lot trade is being carried on with Toronto and Montreal and to a lesser extent with Calgary and Winnipeg. These latter shipments of course do not cost the Department anything.

The following statement, taken from the 47th annual report of the Department shows the amounts paid as one-third of the express charges on less than carload lots on shipments from the east and west. It indicates in some measure the growth of the trade.

Year	On Shipments from East	On Shipments from West
1909-1910	$15,162.20	$13,541.76
1910-1911	$16,898.13	$21,896.73
1911-1912	$19,620.62	$35,315.10
1912-1913	$29,969.48	$39,277.13
1913-1914	$37,818.85	$44,114.47

Many difficulties stand in the way of securing accurate statistics showing the extent of the fresh sea fish trade in central Canada. In the first place, the Department of Marine and Fisheries is not necessarily informed of the quantities carried when the shipments reach

the guaranteed amounts. Again, the refrigerator car service, arranged for by the shippers themselves in 1907, and still in operation, frequently carries close to capacity shipments. Then at certain seasons of the year many carloads of mildly cured finnan-haddie and other fish find their way to the western provinces and even British Columbia. However, through the courtesy of Mr. G. J. Desbarats, Deputy Minister of Marine, and Mr. W. A. Found, Superintendent of Fisheries, the following approximation of the quantities shipped inland from the east and west coasts in carload lots is presented; carload lots containing at least 20,000 lbs.

	For the year ending June	
(1)	By express from the West coast 30th, 1913	112 cars or 1120 tons
*	For the year ending June 30th, 1914	90 cars or 900 tons
(2)	By freight from the East, 1912....	4717 tons
	By freight from the East, 1913....	4677 tons
(3)	By freight from the West, year ending 30th June, 1912	8701 tons
	By freight from the West, year ending 30th June, 1913	8693 tons
*	By freight from the West, year ending 30th June, 1914	9871 tons

* There were no shipments during January or February, 1914, owing to a strike amongst the fishermen.

Correspondence with some of the wholesale dealers in fish in Montreal, Toronto and other cities indicates that the Department's plan of part payment of express charges has resulted in a marked increase in the consumption of fresh sea fish in Quebec, Ontario and the western provinces. Some of the dealers point out that their sales of frozen fish during the winter months have also largely increased, owing to the fact that their customers have acquired a taste for salt water fish during the summer seasons. Further, it is pointed out that the Department's action with respect to transportation made it possible for the dealers to sell fish at lower prices than they otherwise could.

In addition to securing better transportation, the Department has commenced an educational campaign to encourage the consumption of fresh sea fish. The chief feature of this work has been an extensive fisheries exhibit at the Canadian National Exhibition at Toronto. This was first carried out at the exhibition of 1913. The Department secured the cooperation of certain large dealers in Halifax, Montreal and Toronto, and were able to display an exhibit which was one of the leading features of the exhibition. This work was not only designed with a view to educating the public as to the value of fresh fish, but also to point out to dealers the proper way in which such fish should be handled. For this latter purpose a large cold storage show case was placed in the exhibit. The exhibition of 1913 called for an outlay of $9,700.48. At the exhibition in 1914 similar lines were followed out and the Department has received assurances from many dealers that the exhibits had done much to enlarge the demand for fish. In connection with these exhibits small booklets on the best methods of cooking fish were distributed. This is considered by some dealers to be a ery important feature. Unless fish is carefully cooked, it is likely to lose much of its palatableness. To quote from the correspondence of one of the leading fish merchants in Ontario "We feel sure that the sale of fish would be more than doubled, providing the housewife knew more about preparing fish for the table. We have always been of the opinion that the biggest set-back to the consumption of fish is the ignorance of the average Canadian of knowing how to cook it."

To sum up, therefore, the Department's activities in promoting the consumption of fresh sea fish in Canada have followed two distinct lines : (1) Arranging for improped transportation at rates that would permit of the shippers in the Maritime provinces competing with the shippers from American ports; and assisting in a similar manner the shippers of part car lots of fresh fish from the Pacific, to points as far east as the western boundary of Ontario. (2) Educating the retailer and the consumer as to the proper methods respectively of handling and cooking fresh fish.

A Glimpse at the Future.

The results obtained so far have amply justified the work of the Department. Much still remains to be done in the matter of improving transportation and in popularizing the use of fish. In time, the express and freight guarantees now met by the Department should decline instead of mounting higher year by year as at present. There is good reason for expecting such a service to gain sufficient strength to pay for itself so that the Department could direct its energies to other features of the trade.

The education of the fishermen is a problem that must soon be faced, either by the Department or by Fishermen's Associations, or by both. The question is a difficult one, for the fisherman does not take kindly to changing traditional methods. Perhaps, however, work similar to that done some years ago by the Dairyman's Associations and the Department of Agriculture would remedy many existing evils. At all events a recognition of the need for reform is the first step to be made and there can be no doubt but that careless handling of fish by the fishermen and fish packers result in heavy annual losses to the Industry in Canada. As a Montreal fish dealer pointed out recently "Sticking forks in fish and walking over them does not improve them. Yet that is what is done at present."

Such methods are merely typical and until they are replaced by better ones, it will be impossible to furnish the consumer with the highest grade of fresh sea fish. Similarly much can be done to encourage more careful packing of fresh fish. There are good reasons for believing that large quantities of fresh fish are wasted every year as a result of careless packing in unsuitable packages. When these advances have been made, it will be much easier than it is at present to popularize the consumption of fresh sea fish.

LARGEST SHIPMENT OF LIVE LOBSTERS IN MANY YEARS.

Yarmouth, N.S., April 22.—The largest shipment of live lobsters from this port in years, if not the largest on record, went out on the steamer Boston last night. It consisted of 1,292 crates. Prices are down at present, the last quotation being only $14. So, as far as actual value is concerned, we have had more valuable shipments.

Codfish continues in active demand in the Havana market. Prices for codfish, haddock and hake are stable and certain. Cased codfish are in good demand and prices are going up owing to scarce arrivals.

FISH AND THE FISH TRADE OF THE WEST INDIES

By WATSON GRIFFIN.

(Canadian Trade and Commerce Report.)

In almost every market place of the British West Indies fresh fish are on sale. The waters surrounding these islands teem with fish and there are a considerable number of fishermen. Sometimes when the managers of sugar estates suppose that black laborers missing for the day are loafing they are really away fishing.

When I was at Soufriere, in the island of St. Lucia, a black fisherman came in with a large net full of fish. He filled a basket for himself and then emptied the net on the ground and stood placidly by while a crowd of black men, women and children filled their baskets.

"Our black people are generous," said a colored merchant. "When a man gets a good catch of fish and has more than he wants himself, he willingly shares with his neighbors."

I am indebted to Mr. Harry Vincent, a keen sportsman of Trinidad, for information regarding the fish found in the waters surrounding that island. He says there are eighty-five species of edible fish in those waters, many of them of very fine flavor. At all seasons of the year fish can be caught.

At the Port of Spain fish market over four thousand pounds of fish are sold daily, and including fresh fish sold by hucksters and merchants it is estimated that over five thousand pounds of fresh fish are sold daily on the average.

Mr. Vincent says that in the vicinity of the Bocas, a group of tiny islands at the entrance to the gulf of Para, the fishermen frequently capture in their seines schools of fish ranging from 10,000 pounds to 20,000 pounds in weight. They keep them alive in the seine under water, hauling the ends ashore and mooring the back of the bag or purse to a boat anchored out. Very often there will be six or more boat loads captured, but the fishermen, fearful of overstocking the market, only take a boat load at a time to Port-of-Spain. The fishermen sell the fish to middlemen at from $2 to $4 per 100 pounds, but the consumer has to pay from 10 to 12 cents per pound. Mr. Vincent says there is such abundance of fish that if well-equipped steam trawlers provided with a good supply of ice were put out immense quantities could be caught and the price to consumers reduced. The present methods of fishing are very primitive, the industry being prosecuted by a very poor section of the population without any capital to do things in the right way.

The cascadura, a fresh water fish caught in the shallow lagoons and pools of Trinidad, but not found in any other island, is regarded as a great delicacy by epicures.

While great numbers of edible fish of various kinds are caught in the sea about Barbados the flying-fish seem to be most abundant as well as most popular. Several years ago owing to the frequent loss of boats engaged in catching flying-fish the Government of Barbados appointed a committee to investigate and report on the conditions of the industry. As a result of their report a Deep Sea Fishing Boats Registration Act has been passed.

Two large Barbados boats are engaged in the whaling industry. In the Windward Islands black men tell tales of exciting whaling adventures.

In British Guiana all the rivers are full of edible fish.

It is evident that there would never be a great demand in the British West Indies for fresh fish from Canadian waters even if cold storage facilities specially designed for fish transportation were provided on the steamers. But the people of the tropics are fond of smoked, dried and canned fish, and surprisingly large quantities are imported into the British West Indies in view of the general abundance of fish in their own waters.

In a little East Indian country village store in Trinidad I saw smoked and dry salted fish. I asked the East Indian merchant why the people bought this fish when fresh fish was so plentiful in the waters around Trinidad. He replied:—

"Our people like the taste of dry salted and smoked fish better than that of fresh fish. Besides the fresh fish spoil so quickly. They can take the dry, salted or smoked fish home and keep it longer without spoiling. They never buy much at a time but they cannot afford to let even a little spoil."

The different colonies have different methods of classifying fish in their trade statistics just as they have different methods of classifying fruits and vegetables, so it is difficult to combine their figures and show briefly the quantities of the various kinds of fish imported.

The total imports of fish for consumption in British Guiana, Trinidad, Barbados, the Windward Islands and Leeward Islands in the calendar year 1912, amounted to 20,044,667 pounds, of which 11,132,976 pounds were Canadian. In the calendar year 1913 British Guiana, Trinidad and Barbados alone took 11,132,976 pounds of Canadian fish, but complete returns are not available for all the colonies for that year.

During the last five years the average annual value of imports of fish into Jamaica and its dependencies was $965,055. Last year the value was $969,078 as compared with $785,484, the value of fish imported into British Guiana, Trinidad and Barbados, which jointly had a population of 801,576, as compared with 842,553 for Jamaica and its dependencies in 1911.

For the fiscal year ending March 31, 1913, according to Canadian statistics, the exports of fish to British Guiana and the British West Indian Islands were as follows:—

Codfish, fresh	lbs.	2,000
Codfish, dry salted	lbs.	17,288,800
Codfish, wet salted	lbs.	9,800
Codfish, pickled	lbs.	25,800
Mackerel, pickled	brl.	3,958
Herring, fresh or frozen	lbs.	13,300

Herring, pickled	lbs.	33,469
Herring, smoked	lbs.	1,650,022
Other sea-fish, fresh	lbs.	180
Other sea-fish, pickled	brl.	10,684
Other sea-fish preserved	lbs.	752,729

For the fiscal year ending March 31, 1914, the exports of Canadian fish to British Guiana and the British West Indian Islands were as follows:—

Codfish, dry salted	lbs.	15,159,400
Codfish, pickled	lbs.	800
Codfish, tongues and sounds	lbs.	180
Mackerel, pickled	lbs.	5,173
Halibut, fresh	lbs.	44
Herring, fresh or frozen	lbs.	3,300
Herring, pickled	brl.	31,949
Herring, smoked	lbs.	1,040,411
Other sea fish, fresh	lbs.	7,400
Other sea fish, pickled	brl.	10,684
Other sea fish, preserved	lbs.	344,349

Canada exported 45,100 pounds of dry salted codfish to British Honduras during the fiscal year 1913, and 16,300 pounds during the fiscal year 1914.

A scheme is being worked out whereby Pacific codfish can be delivered to middle west consumers by mail order.

A NOVEL ADVERTISING SCHEME EMPLOYED BY MR. H. A. GREEN, FISH DEALER, SASKATOON.

New Brunswick Notes

(Special Correspondence)

A new industry has been started at Deer Island. Last winter the fishermen began for the first time to take scallops and place them on the market. They found a ready sale at good prices in the Boston market, and the industry proved very profitable to those engaged in it. There are lots of scallops around some of the Islands in Passamaquoddy Bay, and the industry should develop considerable proportions.

A conference was recently held between Eastport packers and weirfishermen on the Canadian side, but the effort to arrive at an agreement as to the price of sardines was not successful. The fishermen wanted $20 per hogshead, but the packers would not recognize this proposition, and declined to agree to pay $15. It is likely the fishermen will resort to the old practice of selling their sardine herring at the weirs to the highest bidder.

The Shemogue Oyster Company, according to its last report, has planted twenty-two acres of oysters and fifteen acres of cultch at a cost of over $10,000. The company is having a large oyster boat or dredge built. It is sixty feet long, eighteen feet beam, and will cost when completed and equipped with machinery $6,000. Oysters for planting are secured from the Richibucto, Aboushagan and Shemogue districts.

The Canadian Oyster Company with headquarters at Toronto which took a lease of a large area of barren bottoms in Bay Verte has not carried out the conditions of its contract, and the local government is considering the cancellation of the lease.

Hon. J. A. Murray recently visited Bay du Vin with the purpose of consulting with the residents as to the best means of conserving the valuable oyster fisheries at that place. Some information was ob tained as to the wishes of the residents, but the minister is of the opinion that he should have a survey and report by experts before attempting to prepare a plan to deal with the matter.

New Brunswick has in its inland fisheries quite an important asset. Last year the Provincial Government received from angling licences and fishing leases the sum of $21,000, though the number of non-resident fishermen coming to the province was conserably below the average. The splendid salmon and trout fishing which may be had in almost all parts of the province attracts a large number of sportsmen every normal season, who leave a lot of money among the people. Then the native population catch large quantities of fish on the inland waters for home consumption or for sale.

The fish caught in the inland waters are salmon, trout, whitefish, bass, pickerel, sturgeon, eels, perch, maskinnonge, shad, cat-fish, greyling, bull-heads and goldeyes. The value of the fish caught in the counties of Kings, Queens, Sunbury, York, Carleton, Victoria and Madawaska is estimated at between $40,000 and $50,000 a year. This does not include the fish caught on the Lower Mirimichi, the Restigouche, Richibucto and other important rivers on the North Shore. Smelts taken mostly in the rivers of the North Shore, sometimes reach a value of nearly $800,000 while the salmon catch on the North Shore, mostly taken in the rivers, runs to $180,000 or more a season. In the purely inland fisheries of the counties mentioned above about 1,000 fishermen are employed, and the value of their boats, fishing gear, fish houses and lodges is over $100,000.

Wholesale Fish Prices, Montreal Markets

(Quoted by D. Hatton Company.)

The fish business is very quiet, quieter than generally at this time of the year, though a period of dullness is always expected immediately after Lent.

Due to an early Spring, a good deal of the river fish varieties have already reached the market in good quantities, and sold readily at comparatively low prices.—It is now close season for dore until 15th of May next, and for Black Bass until 15th of June next. —Brook Trout season opens 1st of May, and good shipments are expected early this year.

In the pickled and preserved fish lines, trade is at a standstill.

Bulk and Shell Oysters are also very quiet and the approaching of summer weather will not improve condition.

Smoked Fish.

Haddies, 15 lb. boxes, new ..per lb.	$ .07½
Haddies, 30 lb. boxes ..per lb.	.07
Haddies, Fillets ..per lb.	.10
Haddies, boneless, 15 and 30 lb. boxes	.08½
Yar. Bloaters, 60 in box, Selected	1.25
St. John's Bloaters, 100 in a box	1.00
Kippered Herrings—Selected	1.40
Kippered Herrings—Other brands	1.25
Smoked Herrings—large size, per box	.18
Smoked Herrings—medium, per box	.20
Smoked Boneless Herrings, 10 lb. box	1.20
Ciscoe Herrings, a basket 15 lbs.	1.50
Smoked Eels	.12

Fresh Fish.

Halibut ..per lb.	.11	.12
Haddock ..per lb.	.05½	.06
Market Codfish ..per lb.	.04½	.05
Steak Sodfish ..per lb.	.06½	.07
Carp ..per lb.		.08
Perch ..per lb.		.06
Lobsters, live ..per lb.		.20
Lobsters, boiled ..per lb.		.22
Dore ..per lb.		
Pike ..per lb.		.06
Perch ..per lb.		.05
Gaspereaux ..each		.02
Eastern Salmon ..per lb.		.50
Western Salmon ..per lb.		.30
Shad Roe ..each		.80
Shad buck ..each		.40
Lake Trout ..per lb.		.12
Whitefish ..per lb.		.12

Frozen Fish.

Salmon—Gaspe, large ..per lb.	.12	.13
Salmon—Red, Steel Heads ..per lb.	.11	.12
Salmon—Red, Sockeyes ..per lb.	.10	.11
Salmon—Red, Cohoes or Silvers, per lb.	.08	.08½
Halibut large and medium ..per lb.	.09	.10
Salmon Pale Qualla, dressed ..per lb.	.07	.07½
Halibut large and medium ..per lb.	.08	.08½
Mackerel, Bloater ..per lb.	.07½	.08
Herrings, medium, 50 lb. per 100 count		3.00
Haddock, medium and large ..per lb.	.04	.04¼
Market Codfish ..per lb.	.03½	.04
Steak Codfish ..per lb.	.04	.04½
Pollock ..per lb.	.03	.03½
Tommy Cods ..per lb.		
Smelts, extras 10, 20, 25 ..per lb.		
Smelts, medium to large ..per lb.		.10
Smelts, small ..per lb.		.06
Canadian Soles ..per lb.		.07
Blue fish ..per lb.	.15	.16
Striped Sea Bass, large ..per lb.	.14	.15
Sea Trout ..per lb.	.10	.10½
White fish, large ..per lb.	.08½	.09
White fish, small Tulibees ..per lb.	.06	.06½
Lake Trout, large and medium per lb.	.08½	.09
Dore, dressed or round ..per lb.	.07	.07½
Eels ..per lb.		.09
Pike, round ..per lb.	.05½	.06
Eels ..per lb.		.10
Shad, 3 lbs. each		.08
Frogs, 10 lbs. tins		.20

Pickled Fish.

Salmon, Labrador, Tierces 300 lb.	20.00
Salmon, Labrador, Brls. 20 0lb.	14.00
Salmon, B.C., brls.	13.00
Sea Trout, brls.	12.00
Sea Trout, half brls., halves	6.50
Mackerel, N.S., Brls. 200 lb.	12.00
Mackerel, N.S., Hf. Brls. 100 lb.	6.75
Mackerel, N.S., Pails, 20 lb.	1.50
Herrings, Labrador, Brls.	6.00
Herrings, Nova Scotia, Brls.	6.00
Herrings, Nova Scotia, Half Brls.	3.50
Lake Trout, Half Brls.	6.00
Quebec Sardines, Brls.	6.00
Turbot, brls.	14.00

Salt Dried & Prepared Fish.

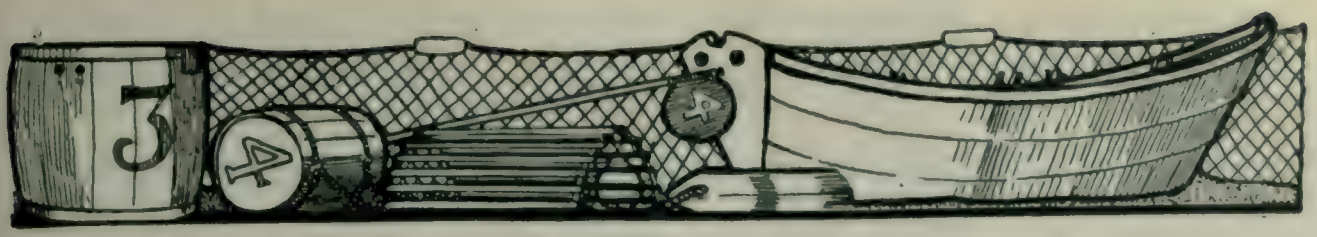
No. 1 Green Cod, large, per barrel	10.00
No. 1 Green Cod, medium, Brl.	9.00
No. 1 Green Cod, small, Brl.	8.00
No. 1 Green Cod, Haddock, medium, Brl.	8.00
No. 1 Green Cod, Pollock, medium, Brl.	7.00
No. 1 Green Cod, Pollock, medium, Brl.	8.00
No. 1 Green Cod, Hake, medium, Brl.	7.00
Quebec Eels, large, per lb.	.07½
Dried Codfish, med. & small 100 lb. bundle	7.00
Dried Hake, medium & large 100 lb. bundles	6.00
Dried Pollock, medium & large 100 lb. bund.	6.00
Dressed or skinless codfish, 100 lbs. case	7.00
Boneless Codfish, 2 lb. blocks, 20 lb. boxes	.08
Boneless Codfish, strips 30 lb. boxes	.11
Shredded Codfish, 12 lb. boxes, 24 cartons, ½ lb. each, a box	1.75

Bulk Oysters, Clams, Etc.

Best Standards, imp. gallon	1.40
Solid meats, imp. gallon	1.70
Selects, best, imp. gallon	1.80
Selects, solid meats, imp. gallon	2.00
Best clams, imp. gallon	1.50
Best Scollops, imp. gallon	1.75
Best prawns, imp. gallon	2.00
Best Shrimps, imp. gallon	2.25
Oysters pails, ¼ gal. per 100	1.10
Oysters pails, ⅛ gal. per 100	.90
Oysters pails, 1-15 gal. per 100	.70
Sealed best standards, quart cans, each	.35
Sealed best selects, quart cans, each	.45

Oysters, Clams, Mussels and Shell Fish, Crustaceans,

Cape Cod shell oysters, per barrel	9.00
Malpeque shell oysters, selected C.C.I., brl.	10.00
Malpeque shell oysters, selected, J.A.P., brl.	9.00
Clams, per barrel	6.00
Mussels, per barrel	5.00



THE ATLANTIC FISHERIES

CHATHAM, N.B.

(Special Correspondence.)

In this vicinity the lobster business will be considerably curtailed, as opening prices are $6.00 per case under last season. Most of the packers are operating their factories, but are running fewer boats at each place, also the wages of the fisherman have had to be cut, and in cases where the fisherman has his own gear the price paid to him is also considerably below that of last season. The demand for the canned article is also up to date below that of last year. Regarding that part of last season's pack which was carried over, same here is quite small, so that we think that later on the prices of this article are bound to advance.

Quite heavy preparations are being made for mackeral, although the outlook for same is that if there is any considerable run, prices will be low.

Regarding the salmon fishing, about the usual preparations are going on, although there is a lot of uncertainty regarding price, as the war has affected adversely the English market, where a large quantity of frozen salmon from this district were formerly sold.

The smelt business, which for the season 1914-15 has now been wound up, has been from the standpoint of the fisherman in the Miramichi district a successful one, as there was quite a heavy catch, for which an average price was paid.

DIGBY, N.S.

(Special Correspondence.)

The fishing industry has been rather quiet here during the months of February and March, caused probably by the warm weather, which decreased the demand for fish very materially, and prices generally ruled very low. The shore boats are becoming active again and are securing some codfish and a few halibut. There have been only three landings from the off-shore vessels here recently:

	Lbs.
Dorothy M. Smart	94,806
Lila Boutilier	94,516
Dorothy G. Snow	84,825

The schooner Quickstep sold her last trip, 60,000 lbs. mixed fish, in Yarmouth, having been obliged to put in there on account of a broken mainboom. The Quickstep has since been sold to Newfoundland parties. Schooner Wilfred L. Snow, which was owned in Digby, has also been sold to the Yarmouth Trading Co., Yarmouth.

The off-shore boats are now through haddocking for this season. The Dorothy Smart and the Albert J. Lutz, after being thoroughly overhauled, sailed from here in the Summer rigs to engage in the halibut fishing; while the other vessels of this port are getting ready for shacking trips and will bring in principally hake and cusk.

The "Lutz" will fish around the Cape Shore and Western Bank, and sail for the Gulf of St. Lawrence grounds later in May.

Not only was this season's business affected by the mildness of the winter here, but business for next year was also threatened by the very limited supply of ice made in this section of the country; that commodity being an absolute necessity to the fishing industry. This difficulty, which had never occurred here before, was temporarily overcome by the importation of a cargo of some five hundred tons of ice from Rockland, Maine, and also a large quantity by rail from the interior of the province.

During the latter part of March the fishing ports of Digby and Annapolis counties were favored with a visit by Mr. J. J. Cowie, Fish Expert, from Ottawa, who lectured on the curing and packing of herring, mackerel and alewives.

Mr. H. B. Short has left o na pleasure trip to British Columbia and San Francisco.

ST. JOHN, N. B.

(Special Correspondence)

Fishermen here are overhauling their boats and gear and getting ready to put up weirs for the spring fishing. The number engaged in harbor fishing this year will be smaller than usual.

Wholesale dealers have fair stocks of salt fish on hand, and prices have been pretty steady. Quotations are as follows:

Fish	
Bloaters, boxes.	0.75 — 0.90
Cod—	
Medium.	.... — 5.25
Small.	.... — 4.25
Finnan haddies.	.... — 0.07
Herrings—	
Gr. Manan, bbls.	6.00 — 6.50
Kippered, boxes.	.... — 0.80
Haddock.	.... — 0.04
Halibut.	.... — 0.13

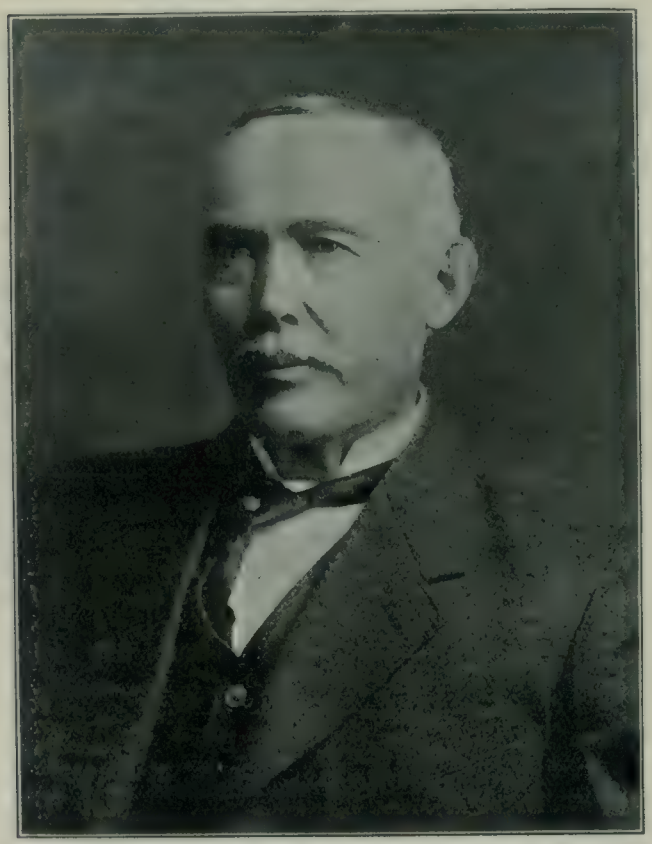
The fresh fish market was pretty well supplied during the month, Gaspereaux have been coming in freely, and selling at from 3c to 5c each. Halibut of excellent quality is now selling at from 18 to 20 cents a lb. Small lobsters have been plentiful at 10 cents each; some big ones have been on the market recently, selling as high as 50 cents each. Cod and haddock remain at 5 cents a pound. Some Digby fishing vessels have been here for bait, taking gaspereaux.

PRINCE EDWARD ISLAND.

(Special Correspondence.)

The lobster fishing season for the waters around Prince Edward Island, excepting that section of Northumberland Strait from Cape Traverse to West Cape opens on the 26th inst, and closes on June 25th, the latter date being five days earlier than last year.

When meetings were held last fall to discuss the advisability of closing down the canneries for the season, owing to the drop in prices caused by the war, and



HON. J. McLEAN, Souris, P.E.I., Director C. F. A. for Prince Edward Island.

what was then regarded as an unfavorable outlook, the fishermen to a man and almost all the packers, indignantly opposed the suggestion. They argued that to allow the plant to remain idle for a year would cause a great depreciation in its value. The 195 canneries on the Island are valued at $165,000, and the traps at $320,000, hence there was a big amount at stake.

There were 3,000 lobster fishermen on the Island last year. They received for their fish last year about $631,000. There were 2,000 operatives in the canneries, who were paid $175,000. With the industry closed down for a season these people would have to seek employment elsewhere, probably beyond the province, and when the canneries would be re-opened, there would be a scarcity of the necessary skilled labor.

Whilst only a few canneries will be closed this season, there will be only about 75 per cent of the traps fished, and possibly a corresponding reduction in the number of fishermen. The high prices which had been paid for live lobsters at the canneries for the past several years had induced the sons of well-to-do farmers to leave the farm for the fisheries during the three months of their operation. This class will now give up fishing, and the legitimate fisherman will get more fish, which will in a measure, compensate them for the decline in price.

Last year the packers paid the fishermen from $2.25 to $2.50 per hundred pounds, where the former provided board, boats, bait, traps, and other gear. This year the price will be $1.50. Where the fishermen find everything themselves, the price last year was from $4.50 to $5.50. This year it will average about $3.00. Gasoline boats are used now almost exclusively, the men providing their own gasolene in every case.

Judging from the unusually large quantities of ice along the coast, the fishing will start later than usual, and it is safe to say few, if any, fish, will be taken on the 26th.

The situation, on the whole, looks brighter than last year. It is true that the price for the canned article will be about 40 per cent lower than last year, making a difference of from $8 to $9 for half-pound flats, but on the other hand it is pointed out that the price even before the war was abnormally high, and had to fall as a matter of course. A number of Island packers got caught with a considerable quantity of stock unsold, at the outbreak of the war, but during the winter disposed of these. Quite a few of the Island country stores were able to handle canned lobsters, from which, heretofore, on account of their high price, they were debarred, the local retail trade being confined mainly to the grocery stores in the larger towns.

Mr. J. W. SIMPSON, Selkirk, Man. Director of C. F. A. for Manitoba.

One firm here, the Portland Packing Company, running nine canneries, look for their market to the United States. Other packers are hopeful of placing their stock in Europe where the demand is fair, but the difficulty of securing transportation has to be reckoned with, freight rates having considerably advanced.

Once the war is over, and the trade with the Continent restored to normal conditions, the lobster industry will "come into its own again" on Prince Ed-

ward Island. This province is literally encircled by a complete cordon of lobster traps, and the fishery is one of our most important industries, the value of the catch being close to $1,000,000.

YARMOUTH, N.S.

(Special Correspondence.)

Everything in fishing circles has taken on a decidedly more lively tone during the past month—with the exception of prices. The beautiful weather we have had ever since the first of February has enabled the small boats to get into commission some weeks earlier than in former years, and they are already bringing in good fares. Not all have been fishing yet, but I think, without exception, they are all afloat, and those not fishing are being got in readiness for it. A few of them have changed hands, and at least one has been retired for good, but the fleet will be larger than last year's, a few more boats having been added to it. One schooner—the Edith F. S.—has been sold out of the fleet,but another—the Wilfred L. Snow—formerly of Digby, has been purchased and has been placed in charge of Captain D'Eon. She is a well-known craft, and will be quite an addition to the port.

The lobster fishing is being prosecuted to the utmost, but a severe gale on March 27 and 28 took away a lot of the profits. It is estimated that 5,000 traps in Yarmouth waters alone were destroyed, besides one or two boats and a number of crates of lobsters, which were being kept afloat. Still the month's shipments are well over five thousand crates, so it can be seen that something has been doing among the crustaceans. The prices have fluctuated a little, but they are still fair.

Speaking of crustaceans, the following from a local paper is interesting:—"Mr. Herbert Scoville, while hauling a lobster trap on the south-west point of Yarmouth Bar last Saturday (April 17) was astonished at finding a queer looking crustacean attached to the bottom of the trap. He at first thought of throwing it overboard, but owing to its rare appearance, decided to bring it to town, and it was exhibited in the window of L. C. Gardner & Co., in a dish containing salt water. It was encrusted in a shell resembling an oyster, but had numerous mouths—a dozen or more—which kept protruding from the shell at regular intervals. It attracted a lot of attention, and no one had ever seen a similar one in these parts, and no one could tell what it was." Perhaps some of the readers of the "Fisherman" can tell us what it is.

We had some fairly large halibut arrivals last week, but the prices were so "wobbly" and uncertain the fishermen could hardly get an offer for them, and some of the vessels did not discharge for days. Seven cents was the best the Boston market offered, and our local dealers did not care about offering.

The annual run of alewives in the Tusket River is on, and this has to a great extent relieved the famine in bait. They are being taken in fairly large numbers—in fact more than our local fleet can handle—and they are also being shipped to the near-by fishing stations.

The trap men are getting ready for the mackerel run. This will, no doubt, start in a few weeks, and it is possible it will be a little earlier this year than usual—the season seems to be more advanced in every respect. May 7th is the earliest date we have of mackerel being taken here—and possibly it will be somewhere around that date this year. The schools are gradually coming north, but the Gloucester vessels in touch with them report them as being very wild yet.

During the month, the following were the exports by boat to Boston:—5,297 crates live lobsters, 185 cases canned lobsters, 11 cases wet salt cod, 119 boxes finnan haddie, 1,918 boxes boneless cod, 21 cases fresh cod, 9 barrels salt mackerel, 95 barrels salt herring, 43 barrels perriwinkles, 36 barrels clams, 144 half-barrels shocked scallops, 15 boxes fresh salmon, 7 barrels fish clipping, 6 cases and, 879 drums salt cod, 10 barrels glue stock, 237 cases fresh fish, 11 barrels eels, 7 barrels fish oil, 138 barrels fish waste, 92 barrels fresh halibut, 19 cases pickled cod, 7 barrels cod oil, 44 boxes smelt, 5 barrels fish scraps, 38 cases pickled fish, 241 barrels fish skins, 1,242 boxes bloaters, 5 barrels haddock roe. To Porto Rico, 240 drums dry salt cod; to Venezuela, 167 do.; to Havana, 213 drums dry salt fish; to Panama, 76 do.; to England, 615 cases cnned lobster; to France, 75 do.

NEWFOUNDLAND NOTES.

(Special Correspondence.)

A very large fish company is in formation in St. John's. It is a gigantic undertaking,and if once established will be the greatest of its kind in the world. This company is being formed by the "Fishermen's Protective Union," a large political body embracing upwards of twenty thousand Newfoundland fishermen. This company will primarily be an exportation concern. The ultimate aim of the company is, to secure the monopoly of the exportation of fishery produce. Prices quoted as heretofore by merchants will be overruled by the company, which will be in a position to name its own market price. The formation of such an organization emanated from the fluctuations which have always, and greatly so, accompanied the sale of our fish. The fishermen have asserted that these changes in fish prices are very often been manipulated by the local merchant at the expense of the helpless fisherman. This unprecedented procedure of making the fishermen their own exporters is being agitated by Mr. W. Coaker, who has pointed out the advantage to be secured in demanding en masse higher prices. Mr. Coaker is president of this new company. Its capital will be approximately one million dollars. The bulk of the shares will be purchasable only by the fishermen. The large property owned by "Silver" of Halifax, has we believe, with all the apparatus for fish curing, been purchased by this company, who intend transferring it this spring to Catalina, Newfoundland, where the headquarters will be located. As a part of the business a plant will be erected on Labrador, where fish will be dried, barrelled and marked thence. Already the company has ordered about 10,000 herring barrels, which it intends packing with herring and marketing.

It is quite probable that the Newfoundland lobster fishery will this season be discontinued; in the first place to preserve it, and because Germany, our market, is eating crow. The Minister of the Marine and Fisheries Department has been in communication with all the lobster packers around the coast. They almost unanimously agree to abandon the fishery this year, whilst not a few suggested a close season for a period of from three to five years.

The Norwegian fishery being only equal to half the usual catch, and the Scotch fisheries being almost nil, a great impetus has been given Newfoundlanders to

engage in fishing this year more extensively than ever.

Of the very many cargoes of fish sent to Europe and the Brazils since the war, but one disaster has so far occurred. The schooner Wilfrid M., about one month ago, with a cargo of fish from A. Goodridge and Sons, Ltd., of St. John's, was sunk by the cruiser Kron Prinz Wilhelm, off the South American coast. The vessel carried a cargo of 4,500 quintals valued at $45,000.

The whale fishery, once a most remunerative industry, will no longer be carried on in Newfoundland. The indiscriminate kill for want of rigorous legislation has made the mammal almost non-existent in Newfoundland waters.

An uncharted shoal of water was recently discovered about twenty miles south of Cape Pine, on the south coast of the island. The depth of water is about eighty feet. The discovery was made by one of the local fishing craft. The Marine and Fisheries Department will investigate in the spring.

To date, the number of seals secured in the sealing fishery is the smallest in the history of the fishery.

GRAND MANAN, N.B.

April 11th, 1915.

Editor Canadian Fisherman,—

I wish to express through the columns of your valuable magazine the merits of the fishing industry of the Island of Grand Manan. Situated in the extreme southerly part of the county of Charlotte, and a mere speck on the map of New Brunswick, it is a very industrious and thriving spot, with a population of 2,700, of which nearly all of this number are toilers of the sea.

This island is about 20 miles long by an average of six miles in width, and is divided by districts, namely: North Head, Castalia, Woodward's Cove, Grand Harbor, and Seal Cove. The chief industry of this island is the herring fishery, in which hundreds of boats and men are employed during most of the year, especially from the first of July until the last of December. During the rest of the year we carry on the catching of cod, hake, and lobters—the latter industry is carried on very extensively, and employs large numbers of men and motor-boats. Yet at present this line of fish is very low, the fishermen are only receiving 18c for the large lobster, and the small ones being prohibited from sale by law, makes business in this line dull, yet it is a good law, if only well enforced.

Now, I wish to call attention to the large amount of business transacted here for the small population. There are some 21 general stores on the island, and a number of large fish firms, such as, The Grand Manan Fish Co., Mr. Frank Ingersoll, North Head, J. L. Guptil, Irvin Ingalls, Grand Harbor, McLaughlin Bros., Seal Cove, this latter firm during the winter of 1913-1914 handled about $60,000 worth of fish alone, which was a little above the average.

We are now making ready to repair our weirs for the season's business, and are in hopes of a good season.

J. BURTON COOK, Seal Cove.

"Conservation"—a monthly bulletin published by the Commission of Conservation, Ottawa, is giving quite a lot of publicity to fish and its value as food. The is good and highly commendable work. We hope it will continue. Fish merchants will find a lot of valuable information in this publication—good talking points—and we would advise them to write the Commission and have the Bulletin mailed to them regularly.

Building a Fish Business

By M. H. NICKERSON.

The latest word from Prince Rupert says the town wears a broad smile in prospect of its coming greatness as the head-centre of the North Pacific fisheries. They claim the foundations of a colossal trade in that line have already been laid. It took place last March, when a decree of the Dominion Government opened that port and all others in British Columbia to American fishing vessels landing fares there for local sales. It allowed those alien boats to bring in their halibut catches direct from the prolific fishing grounds, not very distant from that part of the coast. If the fish so landed were bought by a resident party for reshipping out of the country, no duty was collected, and no license was required. Then again, those boats were permitted to take on bait, ice, stores and all things needful for another trip,. exactly the same if they were Canadian craft. In the opinion of all concerned, this was a concession to the foreigner, and a God-send to the merchants, as well as the citizens in general. Also it was a keen stroke of business for the Grand Trunk, which of course, got all the carrying of new trade. You can clearly see how everybody was suited with the transaction, and no one looked sour. Prince Rupert is a young city with the elements of growth within and around, but it could not expand by simple feeding on the fat of its own intestines. Its people have energy and foresight, having from the first shed the shells of old-time notions, which cramp the enterprise of our Eastern sea-board. They cleared the way, and the Seattle fleet will come there and set up its headquarters. All trades and callings will flourish in consequence.

Vancouver had long been the same kind of a haven for the New England Fish Company's steamers, which enjoyed equal, if not greater franchises and priveleges in Canadian ports and waters. It looks as if they paid no duties on fares they landed, or on the supplies they purchased; though some of the former might find its way to Toronto, and often even to Halifax, competing with the Sambro catch, in the home market; and much of the latter, ordered for ship's use, came to them from Boston and Gloucester. But domestic trades-people got good pickings, and the lion's share fell to the Canadian Pacific. That line did the transportation act. There were mounds of money in it. Far back as 1904, a minister of fisheries told me the said road got a yearly freight of $300,000 from handling the goods of the New England vessels, and it would be bad policy to drive them away from Vancouver, for in that case, they would fit out at Seattle. The resident Canadian fishermen, however, kicked against the intruders with all their might, and begged the authorities to intervene in their behalf. They went so far as to start an opposition boat, but all in vain. They found it hard to kick against the pricks. After that, things went on smoothly, to all appearances, till Prince Rupert began to bid for the trade, which in the meantime, had thriven and grown very great. It was a wise move and well backed.

The foregoing leads around to the point from which it started. In treating this subject, it was just as needful to take a retrospective glance as it is to paint the back-ground of a picture. It will make the main features stand out in proper relief. I will hand out, in due course, the balance in reasonably small instalments. The next will have to do with kindred matters on the Atlantic side of our country.

THE PACIFIC FISHERIES

(Special Correspondence.)

THE PACIFIC CODFISH FISHERIES.

The average person in Canada has no knowledge of the extent to which the cod fisheries of the Pacific are prosecuted. Most people who ever give the matter thought at all, are under the impression that all codfish comes from the Atlantic Ocean. There is another strange trait to remark upon, and that is that the great majority of dwellers on the Pacific slope, up to a late date, always preferred to buy codfish brought from the Atlantic; with the high transportation costs, this was almost a luxury.

This preference for Eastern Cod has been due in most cases to sentiment. The Scotchman refuses to believe that there is any herring in the world to equal that caught in his waters; the Russian goes for his own caviar every time, and so on. Of course, the methods of curing have a lot to do with the case; also it takes a long time to adapt conditions to make the local goods of the same quality as the old home goods.

There is abundance of codfish in the British Columbia waters, and the great pity is that the markets are so limited. For ease of explanation I shall divide the cod of the Pacific into three species, namely the Shore Cod, the Black Cow and the Behring Sea Cod.

Shore Cod.

Without going into scientific technicalities, it is sufficient to say that the British Columbia shore cod differs very materially from the Atlantic cod. The fish may be of a different species scientifically. Still for us they are codfish.

The quantity is unlimited, and the fish very easy of access. The fisherman need not go far from his home port to enable him to catch more than he can sell. In the past many experiments have been made to utilise this fish as is done on the Atlantic coasts. But for some reason, there has been very little success. So-called "haddies" have had a fair margin of success, and may in time become a factor in the fish industry of British Columbia. Other forms of smoking have also been adopted.

The flesh of the fish is apparently too soft for curing, as known in the East. Owing to the warm waters of the Pacific, there is not the firmness that is necessary; at the same time the flavor is distinctly inferior to the fresh article of the Atlantic. There is another point worthy of mention, and that is that our so-called codfish have no tongues, and so we are without that delicious breakfast dish that one can get in the Maritime Provinces.

Up to lately there has been a so-called Japanese Codfish Trust. But this has been broken owing to other fishermen being compelled by lack of employment to fish for cod. It was left in the hands of the Japanese fishermen for a long time, with the result that they had control of the whole business. They were thus able to keep the price steady, withholding fish if the market was full. They prosecuted the fishing by means of their power boats, which form such a large part of the "mosquito" fleet on the coast.

These boats are fitted with tanks, to which the sea-water has access through holes. A certain amount of the fish is headed and gutted on the boat, and this is sold immediately on arrival. But the use of the tanks is questionable. The fish are placed alive in these tanks, and brought into port. If the market is unable to take care of the fish right off, the fish are transferred into submerged pens and there held until the price is right. This has resulted in an inferior quality being offered to the public. It stands to reason that the cod will deteriorate if left in the warmer and polluted waters of the harbors, they also lack feed and lose many pounds in weight; the flesh becoming even more soft. For some time the health department of the city has tried to stop this practice, and without success. But now that the "trust" is broken, this practice should disappear. It simply arose from the fact that the local markets were unable to take care of the catches, and so the fish had to be held until the price was sufficient to make the trips worth while.

Black Cod.

There is a fish that is known to very few outside of dwellers on the Pacific. The Black Cod is one of the most tasty and nicest fish to be obtained. Although many operators in British Columbia and on Puget Sound have tried for years to obtain a market for this fish in such a quantity to make it worth while seeking, still one cannot but believe that their efforts will be rewarded in time.

The Black Cod is a very close fleshed fish, containing much oil and consequently a very rich fish. About the best way of cooking it is by baking. Visitors who have tried this dish are loud in its praises. It takes the pickle well, with the result that many barrels of this fish are consumed annually in the Middle West markets of the United States. It also freezes well, and should form a delicacy in those parts which depend on frozen fish in the winter.

Of late, quite a local trade has been developed in Kippered Black Cod. This form is most appetising. As with the Kippered Salmon, the Black Cod may be eaten either cold or warmed up, making excellent dishes for quick meals.

Whether the Black Cod belongs to the codfish tribe is out of my province. I am merely using the local names. In appearance the fish has a very dark skin, and hence its name.

The greater part of the fish brought to shore comes on the halibut boats. With every haul of halibut there is usually some of this fish on the "skates." Off

of Vancouver Island there is stated to be plenty of fish to take care of all the markets that will offer in the future. It looks like a case of popularising the fish as was done years ago with the halibut, and in more recent years with the pink salmon. I would urgently suggest that visitors to the Pacific should not depart before tasting this Black Cod.

Behring Sea Cod.

Here we come to something that the trade all over America knows about. As on the Atlantic, these cod are caught on banks, the most popular haunts of the vessels being in the neighborhood of the Aluetian Islands between Alaska and Siberia, and in and around Bristol Bay in Northern Alaska. The cold waters of the Arctic make the flesh similar to that of the fish caught on the Labrador coast. Off-hand it is difficult to say what these fish feed on specially. But the bait used consists of herring, heads of halibut, and parts of the codfish themselves. I am told that the caplin may be procured in Alaska, but so far they have not been caught in sufficient quantities to permit being used as bait for the codfish.

The fishery is prosecuted from San Francisco and Puget Sound ports. Some of these companies have also collecting stations in Alaska, and the catch is either shipped down by the mail boats or by the companies' own vessels. Statistics show that from 1870 to the present year the total catch has amounted to over seventy-two million fish.

The fishery is prosecuted by what are called "bankers" on the Atlantic, the vessels being of 100 tons upwards, and carrying dories in proportion to their number of men. The methods used to catch the fish are also similar to the Atlantic, certain adaptations being required by circumstances.

The Pacific Codfish companies are right up-to-date in all matters of outfitting and labor-saving, being firm believers in the auxiliary engine. They have also tried out the portable engine to facilitate the working of the dories. So far it seems that the rough weather in which operations have to be carried on, will not permit these portable engines.

The vessels leave their home ports beginning obaut April and return later on in the summer. It is rarely that they are able to get in another fishing trip, although collecting vessels manage several. With their catch amounting from 200 tons upwards, the vessels return to their home ports with the fish salted in bulk in their holds. From there some is shipped right out of the vessel in bulk into cars and sent to Atlantic ports; it being stated that some of this fish finds its way back to the Pacific under the guise of Eastern Boneless fish, and so fetching higher prices than the local article. Why it should is one of the mysteries of human nature. The balance is either packed in the different forms of boneless, or after being placed in tanks and dried partly by sun and partly by driers, sold as "whole cod."

There have been many controversies about the quality of the Behring Sea cod. Many have stated that the salt used has a lot to do with the difference between that of the Atlantic; others state that it is the fish. Whatever the real reason is, one thing is sure and that is that the real Atlantic codfish seems to cook softer and whiter than the Pacific. But against this we have the word of scientists that the Behring Sea cod has superior food properties to the Atlantic. We have another thing in our favor. If we buy Pacific Codfish we know that we are getting codfish pure and simple, the hake and haddock being unknown to these waters. I am afraid that unless we pay very high prices we cannot be so sure of the Atlantic goods.

Pacific coast codfish men are very energetic, and it looks as if in a very few years they will be a factor in the foreign trade, and a factor that will have to be reckoned with. From an Atlantic shipper's point of view, the development of this fishery should be a benefit. It will give him another source of supply in case of shortages as often happens. American dealers are now aware of this, and the greater part of the Pacific catch finds its way into the New England handlers' warehouses. In time, Canadian shippers will have to seek similar sources of supply, and on enquiry he will discover that he can get the real cod delivered at his premises sometimes cheaper than the Atlantic article.

General Notes.

Local Vancouver papers have of late been occupied with discussions concerning the effect that Prince Rupert will have on Vancouver and Puget Sound. Whilst all acknowledge that there will be some competition, especially in the Halibut trade, still Prince Rupert is inclined to want everything at once. She cannot expect large corporations who have capital invested in buildings on the Sound, to move up to Prince Rupert immediately.

From rumors that are around, it also seems that residents of the new Grimsby are looking for immediate wealth for everyone. Fortunes are not made in the fish business, in a hurry. It takes years of patient effort and also experience to be successful. One hears that certain former real estate brokers intend to branch out as fish brokers this season.

It is also reported that a large $200,000 cold storage is to be built in Prince Rupert. The capital is said to be furnished by Chicago capitalists.

It is reported that a deal has been completed by a number of Toronto capitalists to take over the assets of the late Standard Fisheries, Limited. One has heard so many reports of this company, and of the late B. C. Fisheries Limited being taken over, that one is apt to be like our Missouri friends. At all events these Toronto people are supposed to be going ahead shortly, and operate the plants of the Standard Fisheries on the Queen Charlotte Islands.

Most of the cannery crews are now at their stations and in a few weeks we shall see operations in full swing. Spring salmon are the first to receive attention from the "iron chink." Then the others in their course. Some canneries will not be operated, and others that were lying idle will be busy again. The Gosse Millerd Packing Co., have taken over a Bella Bella cannery, and will pack this season.

Considerable interest was taken in the article in the April number of the "Canadian Fisherman" on Kelp by Professor Prince. Most of us thought that fish were the ony commercial commodities to be furnished by the seas. But as Potash can be coaxed from kelp, and as there is money in potash, then let us get busy and do the coaxing. Anyone who has travelled in small boats around the bays of Puget Sound, has said more than "Potash" when one's propellor became entangled with the long stringers they call sea-weed.

Smoked Fish.

Kippers are now being used from cold storage stock. Fresh stock is out of the question, as herring are off the market. Other smoked fish lines are in good demand, especially Finnan Haddies. The price on these is up, and holders of stock are making good money.

Pickled Fish.

The fishermen of the Fraser River are seeking encouragement from the Government to pack Salt Salmon. As Humps are due for a big run, the fishermen think that they should be encouraged to put up some in barrels. There is a factor against this that has to be reckoned with. The good markets for salted fish demand a uniform pack. If individuals put up a few barrels each, by the time that a hundred barrel lot lot is collected and offered for sale, there will be several different lots to make up this hundred. This will mean that there will necessarily be a lack of uniformity, and so a slack market. Experience has taught that it is advisable to pack uniform; either by one firm or under the careful supervision of a competent man.

Mr. F. J. HAYWARD, Vancouver, B.C. Member of Editorial and Publicity Committee, C. F. A.

There was a little interest aroused by the announcement of a large order being placed for dry salted herring for the Orient. Packing these goods to pay calls for a careful and complete knowledge of the market conditions and for the cutting down of operating expenses to the last cent. Much money has been lost in this business, which at the best is a speculative one. Speculation pays sometimes, and so does poker. Careful study of conditions in China seem to point to the fact that this dry salt herring business will be a thing of the past in a few years. Contracts in this business are tricky things to carry out. But all credit is due those who get after business and success is wished to those who have faith in themselves.

The market for salt salmon is limited to about a thousand barrels in Canada. In view of the duty on American goods and also to the new war tax of 7½ per cent, Canadian packers ought to be able to secure all this business. There is good business to be had from the American side. But the trouble seems to be that the opening prices on that side are too low to permit packing in British Columbia. With low opening prices, many try to dispose of their goods to realise what they can. By holding on, this business can be worked at a profit.

Salmon.

The markets of late have been plentifully supplied with the little Blueback. This salmon is about the size of an ordinary Atlantic sea trout and very like it in appearance. Some state it to be the grilse; others a small species of the Sockeye.

Red Springs are fetching a good price for local consumption and of late there has not been a large enough supply to allow the express shipments to the East.

Halibut.

Halibut is an uncertain quantity. The weather of late has not been at all good on the banks, and the result are smaller catches. There have been a fair number of shipments into the city by coastal boats, the fish coming from the camps supplied by Indian fishermen. Any arrivals that are large enough to warrant car shipments are fetching good prices in the East. Seattle has had a good supply the past couple of weeks, and the prices have been low there. But the duty against American fish brings the cost delivered into Canada too high to allow competition.

Mild Cured Salmon.

A little of this is already being put up. But only the best possible quality is being packed. It seems that the holdings of this fish both here and on the Sound have been eased off. It is stated quite openly on the Sound that Germany has received nearly as much as usual, shipments going on to her through Denmark and Norway. It is difficult to say what will happen this season, so all packers are going very carefully.

Mr. W. HAMAR GREENWOOD, Vancouver, B.C. Director of C. F. A. for British Columbia.

Other Fish.

Cod in its different species are in good supply, and oolichans are seen also for sale. Soles, smelts, bass, and carp are also in fair supply. The market for these

is necessarily a limited one, and so only sufficient to take care of the demand is brought in. When the markets are ready and large enough, Puget Sound will offer plenty of opportunity to fishermen.

Canned Salmon.

The past few weeks have seen the head offices of the various canneries, busy places. There has been a continual stream of all classes in and out of these places. Licenses are now distributed, and the coastal boats have been sailing with full passenger lists. In a very short time operations at the canneries will be in full swing .

Stocks in first hands are practically cleaned out. It is stated that enquiries for prices bring forth answers that none is to be obtained. But if an order is in sight, it is surprising what can be procured although first hand stocks are supposed to be entirely cleaned out. At various times rumors are around that such and such a government are open for prices on large orders. It is understood that a little selling has been done, but that there will be placed large contracts for the coming pack. Japan and other countries are feeding their armies on canned salmon, and others are expected to follow suit.

On the higher grade goods no lower prices are looked for, as the supply will be insufficient to take care of the demand. No low prices are looked for on the pink grades, as the orders anticipated will leave no surplus. Puget Sound canneries on the American side anticipate a pack of a million cases of Pinks (Humps).

The following are the standard prices, and they do not seem to vary at all:—

	Talls.	Flats.	Half-Flats.
Sockeyes	$8.25	$8.75	$10.25
Cohoes	4.75	4.75	6.25
Pinks	4.75	4.75	6.25
Chums	2.75	2.75	

Wholesale Fish Prices—Vancouver, B.C.

SMOKED FISH.

Finnan Haddies 15s and 30s, 10c to 12c; fillets 11c; bloaters, 6c, kippers 7c; salmon 12c to 15c; halibut 12c; black cod, 12c.

FROZEN FISH.

Steelheads 7c; halibut 6c; smelts, black cod, etc., 8c.

FRESH FISH.

Salmon Red Springs, 10c to 14c; white springs, 5c; halibut, 6c to 8c; cod 5c; smelts 6c; soles and whiting 5c; skate 3c; perch 6c; rock cod 6c; red cod 3c; bass 6c; black cod 8c; shad 9c.

PICKLED FISH.

Acadia 12-2s and 24-2s, 14c; strips 13½c; tablets 14c; bluenose 1s and 2s, 9½c; Pilot 8½c; Nova Scotia Turkey 7c; Pacific boneless 8c; Pacific whole cod 6c.

SHELL FISH.

Crabs $1.00 to $1.20 doz.; shrimps, 12c to 16c; prawns, 20c; clams, 2c; shelled $1.25 gal.; Eastern oysters, $2.85 gall.; Olympia oysters $3.25 gal.

HOW TO HANDLE FRESH FISH DURING SUMMER

By J. A. PAULHUS,

Chairman Publicity Committee, Canadian Fisheries Association.

Before entering the period of hot weather, a few suggestions to the Fish Trade might help to stimulate and increase the consumption of fish.

As it has been so often quoted, no food deteriorates, or loses its flavor, so rapidly as fresh fish food when not properly cared for. After the producer had done his duty in supplying strictly fresh fish, and the goods have received proper attention when in transit, the final successful handling rests with the distributor, or rather, with the retailer who delivers to the consumer.

As a rule, it must be said that many of our fish retailers are not adequately equipped to meet the exigencies of this particular business, and much trade is lost through the lack of proper facilities.

The first and essential move by the retailer should be to inspect properly the fish that is delivered to him by the wholesaler, and see that it is in the best condition. This being done as a part of a well regulated system, he should immediately proceed to sort and pack it well and cleanly in his fish bin filled with clean ice, or in his refrigerator.

A retailer, who has already a certain trade with a prospect of increasing same, would do well to provide himself with a small refrigerator plant. This would be found a little costly, perhaps, but the initial cost would be quickly turned into a good asset, and secure good profits on the investment in the long run. There is now offered in this market a new cooling apparatus, which does not require any motive power, and, consequently, should be economical to instal and keep going. It is equipped with a box in which ice and salt are mixed together and form a brine. This brine, by the process of gravitation, runs into pipes and produces cold air through the space which it is intended to cool. The principle is simple; the box is placed at a certain height or above the cooling chambers, and the brine, which is circulating, by the law of gravity (the same as in the hot water system of heating) can be utilized in separate chambers to generate cold as required, in proportion to the capacity of the plant. I am not a selling agent for this new device. I read a description of it a few days ago in a magazine devoted to refrigeration in general, and without going into further detail, I may say that it struck me that it should be most useful and adaptable to the retail fish trade. I know that it is used in one or two places in this city by dairymen, and that many similar plants are also in use in the Province of Ontario by dairymen, and in the fruit trade. The chief advantage is the small cost to run it proportionately to plants which require motive power. A good bin lined with galvanized iron, kept scrupulously clean, with an exit for melting ice at the base, is almost indispensable to the retailer, who can not afford a refrigerating plant. A layer of cracked ice is placed at the bottom of the bin, then a layer of fish, another layer of ice, and so on. A sprinkle of salt on each layer of ice will help to produce more cold and keep an even low temperature.

For a display or show case to be placed in a conspicuous place in the store, a box similar to the bin

just described, only not so deep and with a lid or glass top, could be used. The fish could be transferred from the large bin to the display bin as it might be required.

There is no sense whatever in fish being exposed at the shop door on a bit of timber or on a marble slab and unprotected from the heat of the sun, flies, and street dust. After a few hours of this treatment, the eyes are sunk into the orbits, the flesh has a livid tint, the skin becomes parched and dry, and the whole appearance of the fish is most unattractive. No customer with a pretension of having a notion of health and sanitation will stop to buy a food product handled in such a manner.

I would be in favor of strict city regulations regarding the handling of fresh fish, because they would serve a double purpose. They would eliminate these unsightly expositions from the butchers' shops, and fish markets, and help to destroy the fly pest during warm weather, which this city is trying so had to overcome. They would also help to break down the prejudice that a certain class of the community pretend to have against fish food. I have often heard people making this remark: "Why can we not get fish in the city of Montreal, as fresh, as palatable, as good flavored as that we had when at the seashore during vacation or holidaying."

I know there is exaggeration in some cases, and that as a rule this market is supplied with good, sound fish, but there is no doubt that there is room for improvement, and we shall not give up the task until we get as near perfection as possible. Already, it might be admitted, we have made progress, and the day is not far off when the full value of fish food will be appreciated as it deserves to be, especially if we can regulate and improve upon methods of producing and marketing.

With this end in view, let everyone who has an interest in the fish business, be he a producer, a distributor or a consumer, put his shoulder to the wheel and do his share, and I should say everybody in Canada should have at heart the development of the fish industry, one of the best assets this country possesses.

CHANGE EXISTING CONDITIONS REGARDING U. S. FISHING VESSELS AND N.S. PORTS.

The Halifax Board of Trade, says the Halifax Herald, is seeking to have an anomaly in the fish business on the Atlantic and the Pacific Coasts of Canada removed. In British Columbia fish can be landed in all American bottoms and shipped to the United States. In Nova Scotia American sailing vessels may land fish to be forwarded by rail to the United States but when brought here in auxiliary vessels or steamers this privilege does not hold good. In 1898 an order-in-council was passed permitting Americans to land fish free of duty and purchase supplies. In March of 1914, an order-in-council was passed giving Americans right in addition to landing fish in British Columbia and forwarding it to United States to also sell fish in bond to such local dealers as may be licensed therefor, who may export it.

This privelege does not exist in the maritime provinces. The board of trade says it seems reasonable and equitable that Nova Scotia and the other Atlantic provinces should have the same rights in this respect as British Columbia.

The conditions are admittedly different on the Pacific and Atlantic coast, one of them being the greater distance of the fishing grounds from United States ports, but the Halifax board of trade asks that the regulations be made uniform on both coasts. They are asking all the fishing centres in the province to join with them in such a request to the government.

FROZEN SALMON AND OTHER FISH IN GREAT BRITAIN.

Mr. H. Watson in a Trade Report from London, recently, says:—

To judge from the somewhat frequent letters from Canadian shippers who state that they understand that there is a large demand in the United Kingdom for frozen salmon and other fish, it would appear that considerable misapprehension exists with regard to this trade, traceable, it is said, partly to optimistic paragraphs which have been circulated through the press of both countries.

As has been reported at intervals for some time past, the London market has been carrying large stocks of frozen salmon, which it is found impossible to dispose of, except at a heavy loss to shippers. Only a few weeks ago, as a result of a fresh inquiry on the subject, the department was advised by cable that no demand exists for frozen salmon, although in the opinion of some of the leading fish salesmen, the prospects for frozen halibut were of a more encouraging nature, and profitable returns should be realized for reasonable shipments of high quality, provided that the fish arrived in good condition, and more particularly if it could be delivered in time for the Easter trade.

Frozen fish has never been particularly popular in the United Kingdom, and the view is quite erroneous that any considerable rise in the prices of fresh fish means a corresponding increase in the demand for the frozen substitute. Under ordinary circumstances large and regular supplies of fresh fish of all kinds are readily available, and as there has consequently never been any necessity to introduce fish in its frozen form, no definite demand has been created.

Opinion of Leading Dealer.

In reference more especially to the frozen salmon business, the following copy of a letter which was unsolicited, and which was received from one of the oldest established and best known firms in the Billingsgate market, confirms the opinion of other authorities upon the present position:—

"We beg to say that practically the only kind of frozen fish that has hitherto found a sale on this market has been the salmon. Efforts have been made to market halibut in a frozen condition, but the article has not met with much of a reception.

"Speaking of salmon, the position just now is that there are fairly heavy stocks held over from last season which are now being forced upon the market at prices which show heavy losses to the shippers.

"We are just now living in quite exceptional times and it would be difficult to speak with certainty as to what developments there may be in some future time, but in our opinion it would be ill-advised to bring over any considerable quantity of frozen salmon.

"In former years quite a fair proportion of the frozen salmon which was shipped to London found its real sale upon the continent, either in France or Germany; that outlet is closed for the time being."

ST. PIERRE-MIQUELON FISHERY RETURNS

The 1914 fishing season at St. Pierre-Miquelon was reviewed in a report submitted by the United States Consul for those islands and published in a recent Commerce Report. This review should be of interest to Canadians as indicating the result of the season's fishing operations on the Newfoundland banks.

The fishing season at St. Pierre-Miquelon was formally opened on April 14, 1914, with the arrival from France of the steamer Californie with 616 passengers for St. Pierre, fishermen and beach boys to man the local fleet and warehouses. It closed December 2 with the departure of the last steam trawler.

The local fleet consisted of 24 schooners for the banks, five less than in the preceding year, and continuing the steady decline in number that has been apparent for several years. None of the vessels was lost. They were manned by 492 men. The Metropolitan fleet from the usual ports of Cancale, St. Malo and St. Servan, Granville, Fecamp, Paimpol, Binic, and Dahouet, numbered 227 vessels manned by 6,736 men, according to the companies' figures. The local official figures give 117 vessels and 3,225 men, which may possibly be explained by the broken season and not all vessels reporting. There were 22 stream trawlers from France on the banks, manned by 816 men; they came from the ports of Boulogne-sur-mer and Arcachon and numbered six more than in the preceding season. Shore fishermen in 352 boats numbered 860 men, which is an increase over the previous year.

The following comparative table shows the number of vessels and men engaged in the last three years—

Fleet.	Boats.			Crews.		
	1912.	1913.	1914.	1912.	1913.	1914.
St. Pierre fleet ("bankers") . .	40	29	24	738	546	492
Metropolitan fleet	240	235	a117	6,838	3,494	a3,225
Steam trawlers .	14	16	22	379	547	816
Shore boats	345	353	352	757	699	860
Total	639	623	515	8,712	5,286	5,393

a Oficial report at St. Pierre; shipowners' publications show 227 vessels and 6,736 men.

The operation of the Hazen Bill—which passed the Canadian Parliament the year before and would have prevented the coaling of steam trawlers at Sydney, Cape Breton, as is customary—was suspended by governmental agreement for the year.

Squid were reported yery scarce on the banks as well as in local waters. They appeared at St. Pierre in the latter part of August and were obtainable for fifteen to twenty-one days. As they were used by the men themselves, no price was quoted. One firm imported 33,006 crates (504,856 pounds) of frozen squid from the United States. Some were sold at 5½ cents per pound, but the greater part was used in baiting the firm's own fleet. Caplin appeared in June and were plentiful for a month or six weeks. They brought $5 to $6 per hogshead (two flour barrels) for the first day or so, then fell to $3 or $4, and finally dropped to $1.

Then the war broke out. On August 2 the local officials requisitioned two of the steam trawlers and notified the vessels on the banks of the general mobilization and ordered their return to France. A few days later this order was restricted to army reservists; but in the meantime most of the vessels had been notified, had left the banks, and, being sailing vessels, could not be communicated with again. About 40 vessels remained on the banks and completed the season.

The St. Pierre fleet put in to St. Pierre, but trouble with the crews prevented the return of some of the boats to the banks. Five of them did so, however, and completed the season. The steam trawlers with better means of communication, all remained and continued fishing until December, reporting an excellent catch during the latter part of the season. The shore fishing suffered little interference.

The price of green fish ranged from $3.86 per French quintal (121.25 pounds) after the outbreak of the war to $5.79 with an average of $5.26. The price of shore fish, which run smaller in size, averaged $4.34. As usual, very little fish was dried. One lot of 6,000 pounds was bought at Miquelon per quintal of 110.23 pounds. Haddock brought $3.47 to $3.67 green and $4.44 dried. A rather large amount was reported in the catch.

The total catch of green fish landed at St. Pierre during the last three years, in quintals of 121.25 pounds, is shown in the following table:—

Fleet	1912.	1913.	1914.
St. Pierre fleet ("bankers")	40,555	44,537	20,100
Metropolitan fleet	55,144	62,851	48,300
Steam trawlers	32,868	79,064	114,200
Shore boats	24,150	a 19,210	b 42,200
Total	152,717	205,662	224,800

a Estimated.

b Amount reported to Marine Bureau by the shore fishermen. No other official record is kept.

The above figures include only the amounts landed at St. Pierre for shore or transshipment. The remainder of the catch is taken direct to France.

Present Inactivity and Outlook.

At present between seasons little activity is evident. There is some fish in the warehouses, but few orders. An occasional vessel is loaded for France. The exportation of fish to countries other than France or to Martinique is at present prohibited. A private informand states that fish weighing less than 1 kilo (2.2046 pounds) are exempted from this prohibition, but there is no official confirmation of this statement.

A circular of the Comite Central des Armateurs de France received here states that 3,000 of the "registerer seamen" now at Brest and other ports awaiting active naval service will be allowed to sign on for the Bank fishing. These fishermen are to man 112 vessels, including 8 of the St. Pierre fleet. No official confirmation of this has been posted here as yet.

It is difficult to judge the exact conditions of the coming season of 1915. Very little fishing and the resultant high prices are, of course, the obvious supposition; but there is also the possibility that conditions will be modified somewhat by further official decisions, probably largely dependent upon the fortunes of the war.

HARVESTING KELP WITH NETS.

A United States patent has been recently allowed S. A. Knapp, of San Francisco, says the American Fertilizer, for a kelp harvester, comprising a power boat with outrigger, a movable frame, carrying an endless cutter (band saw), and nets for receiving, transporting and storage of the kelp in a submerged condition.

This apparatus(the metal parts of which are composition metal, not affected by sea salts) cuts a swath through the tangled mass of kelp (as it exists in the large beds), the kelp drifts into the net attached to frame carrying cutter. When the net is full, it is detached from the frame, closed by a rope (running through rings in the mouth of the net) and turned adrift. The kelp floats, and the net full of kelp is picked up by a tow boat following the cutting boat. The cutting boat continues cutting and filling the nets.

When the tow boat has picked up enough nets to make up its load, it either tows them ashore or to a barge, which loads for transportation to the landing.

It is claimed that by the use of this apparatus that the wet kelp can be harvested and taken ashore (within a reasonable distance) at a cost of less than ten cents per wet ton. As it takes five tons of wet kelp to make one ton of dry, it would make the cost of harvesting fifty cents per ton of dry kelp. This is an important saving, as heretofore the cost per ton of dry kelp for harvesting alone has ranged from $3.00 per ton upward.

Mr. Knapp, the inventor of the kelp harvester above referred to, writes us as follows in regard to the advantages of using nets for harvesting kelp:

"Kelp on exposure to the air exudes moisture from every cell and pore, and when torn and bruised, loses portions of its contained moisture. This exuded moisture is a saturated solution of almost pure potassium chloride, and to avoid these losses it is necessary to keep the kelp under water and prevent as much as possible bruising and crushing the same.

"This is accomplished by the use of a net, which, when filled with kelp, constitutes a yielding mass immersed in the water, keeping it from the air and preventing the losses mentioned.

"The large bodies of kelp available for industrial purposes are all in semi-exposed positions on rocky, uneven bottoms and before rocky and precipitous shores. The water in and around these beds is in constant motion through a heavy ground swell or wave.

"A large amount of time in harvesting the kelp is saved by using nets, as the cutting boat is only stopped from operating during the time required to disconnect the filled net (after the open end is drawn together and fastened), and leaving same afloat, and to connect an unfilled net in its place.

"If kelp, after being cut, gets loose by accident or storms and drifts upon beach, it loses its value in ratio to the amount of sand it accumulates. This is generally from 20 per cent to 40 per cent of its own weight, according to weather conditions. This sand will not shake off or wash off, as the sodium alginate which immediately covers the kelp when exposed to the air is like glue and practically waterproof, and this necessitates additional expense in the following treatment as well as the expense of gathering same up and transporting it.

"By using the nets this is, to a large extent, avoided, as, if a net filled with kelp comes in contact with the sand, and by attaching a line, it can be pulled off into deep water and towed to its destination with small expense.

"After cutting the kelp and towing it, enclosed in the nets, to the point of unloading the nets, or to barge for conveyance, this unloading can be done by using any suitable hoisting or elevating apparatus, derrick or inclined marine railway, hoisting the entire load enclosed in net to a sufficient height to permit dumping from the net into bins or other receptacles provided for same. This is accomplished by opening the front or open end of the net, attaching same to edge of bin or receptacle mentioned, attaching a line from winch, or other suitable end of the net, and hoisting same, which action causes the load of kelp to be discharged from the net into the bin or receptacle mentioned without any manual handling."

FISH AS A FOOD.

Cattle Thrive On It.

The use of fish as cattle food has a novel sound, but it appears to be a common practice in various parts of the world, says "Nature." In Shetland and Iceland dry salt fish is fed to cattle, sheep and even to horses. So long ago as 1853 Sir John Lawes carried out experiments at Rothamsted on the feeding of pigs with dried Newfoundland codfish. He found that the fish-fed pigs were fat and well ripened, and there was a very good proportion of increase of food consumed. Some recent experiments at the Agricultural College, Coimbatore, made at the instance of Sir F. Nicholson, director of the Madras fisheries bureau, have brought to light some further interesting facts.

R. Cecil Wood, in describing the experiments, mentions that certain special cattle kept for display of strength at village festivals at Nandyal are fed with mutton, while it seems a fairy common practice to make use of bandicoots when killed by pounding them in a mortar and feeding them to cattle. In Mr. Wood's experiment two lots of heifers were fed on a dried fish diet and normal diet respectively. The animals took some little time to get used to the fish, but then ate it readily enough. At the end of six months the fish-fed heifers showed an average increase of weight of 54 pounds per head, as against 70 pounds for the normally fed animals.

Although fish does not compare favorably with ground nut so far as fattening value is concerned, it is suggested that on the coast a considerable saving might be effected by its use.

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CANADIAN FISHERMAN

THE MAGAZINE OF CANADA'S COMMERCIAL FISHERIES

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are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

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On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license

To The Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to--

THE MINISTER OF COLONIZATION,
MINES AND FISHERIES OF THE PROVINCE OF QUEBEC

Department of The Naval Service

FISHERIES:

In addition to the full statistics of the Fisheries which are published yearly in the Annual Report, the Department issues monthly bulletins containing statistics of the sea fisheries and general information in regard thereto. Copies of these will be sent free to any applicant.

The value of the Fisheries of Canada is now about $34,000,000.00 annually.

The demand in the home markets for fresh and mildly cured fish, is expanding very rapidly. The Department pays one-third of the express charges on less than car-load lots on all shipments of such fish from the Atlantic Coast to points as far west as the eastern boundary of Manitoba, and from the Pacific Coast, as far east as this boundary.

Close Seasons for Fish in Force on May 1st, 1915

Kind of Fish:	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.
Bass (Achigan)	.....	.....	.....	1 April to 15 June.
Maskinonge	.....	.....	.....	15 April to 15 June.
Ounaniche	.....	.....	.....	1 Oct. to 30 Nov.
Oysters	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.
Quahaugs	Oct. 1 to May 10 July 1 to Aug 31.	Oct. 1 to May 10 and July 1 to Aug. 31.	Oct. 1 to May 10 and July 1 to Aug 31.	.....
Pickerel	.....	.....	.....	April 15 to May 15.
Salmon (netting)	Aug 16 to Feb. 28	Aug. 16 to Feb. 28.	Aug. 16 to Feb. 28	Aug. 1 to April 30.
Salmon (angling)	eAug. 16 to Jan. 31.	Sept 16 to March 31.	Sept. 16 to March 31	Sept. 16 to April 30.
Smelts	fApril 1 to July 1.	fMarch 1 to June 30. June 1 to July 1	fApril 1 to June 30.	April 1 to June 30 June 1 to June 30.
Sturgeon	.....	.....	.....	Oct. 1 to April 30
Speckled Trout	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 15 to Dec 1.
Salmon Trout	.....	.....	.....	.....
Whitefish	.....	.....	.....	.....

Kind of Fish:	Ontario.	Manitoba.	Saskatchewan and Alberta	British Columbia.
Bass (Achigan)	a15 April to 15 June.	.....	.....	.....
Maskinonge	15 April to 15 June.	.....	.....	.....
Ounaniche	.....	.....	.....	.....
Oysters	.....	.....	.....	May 1 to Aug. 31
Quahaugs	.....	.....	.....	.....
Pickerel	cApril 15 to May 15.	April 15 to June 20.	dApril 1 to May 15.	.....
Salmon (netting)	.....	.....	.....	.....
Salmon (angling)	.....	.....	.....	.....
Smelts	.....	.....	.....	See regulations.
Sturgeon	.....	gMay 15 to June 15.	gMay 15 to June 15.	.....
Speckled Trout	Sept. 15 to April 30.	.....	.....	.....
Salmon Trout	hNov. 1 to Nov. 30.	.....	.....	.....
Whitefish	hNov. 1 to Nov. 30.	Sept. 15 to Nov. 19.	iSept. 15 to Dec. 15.	.....

a—Except in Lake Erie west of Pt. Pelee and around Pelee Island, where close season is May 25 to July 15.
b—Except on leased areas, where close season is from 1 July to 31 Aug.
c—No close season in St. Clair River and off Lambton County.
d—Except in waters north of or intersected by 54th parallel north lat. between eastern boundary of Saskatchewan, and 109th meridian and in waters intersected by or north of 55th parallel n. lat. west of this meridian to western boundary of Alberta, where there is no close season.
e—Except in Cape Breton Island, where close season is from Sept. 27 to May 31.
f—Bag-net fishing season Dec. 1 to Feb. 15; gill-net fishing season Oct. 15 to Feb. 15. Licenses required for bag-nets or gill-nets.
g—Sturgeon fishing prohibited until Jan. 1, 1916.
h—No close season in Lake Erie.
i—Except in waters specified in (d) where close season is from 1 Oct. to Nov. 30.
For British Columbia See Regulations.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF NADA, THE SCIENCE OF THE FISH CULTURE AND THE USE AND - VALUE OF FISH PRODUCTS -

F. WILLIAM WALLACE
EDITOR

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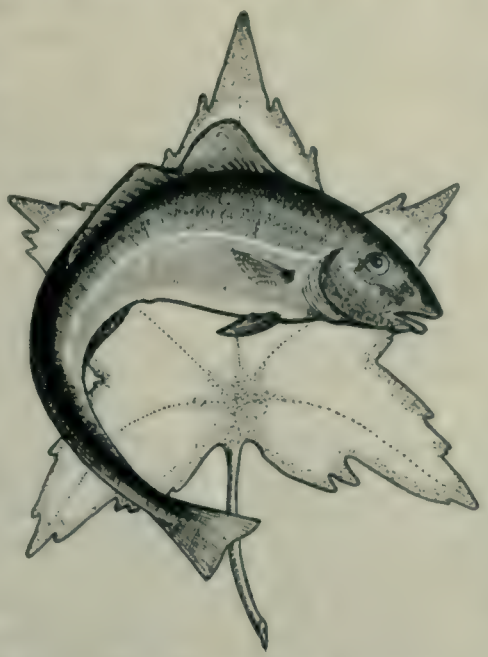

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Official Organ of the Canadian Fisheries Association

Vol. II. MONTREAL, JUNE, 1915 No. 6

NOVA SCOTIA BRANCH OF THE CANADIAN FISHERIES ASSOCIATION.

Elsewhere in this issue will be found a report giving details of the organization meeting of the Nova Scotia branch of the Canadian Fisheries Association.

In conversation with a representative of the "Maritime Merchant" regarding the Association, Mr. A. H. Whitman, Branch President, said:

"Broadly, the object of the new organization is to encourage co-operation among those interested in the fishing industry. Our total trade in fresh fish is not large, and may not permit of such expansion as some enthusiasts think, but there is no reason, said he, why it may not be profitable if fierce competition should give place to friendly co-operation. The trade have been coming to a recognition of this fact for some time, and I am encouraged to think that from now forward there will be less of each individual working by himself, and more of consulting each other's interests, than there has been in the past."

"The branch of the industry which gives the best prospect for success, so far as the domestic market is concerned," said Mr. Whitman, "is that of smoked fish. The problem is mainly one of distribution; in fact this is also the chief problem in the fresh fish business. Cold storage has helped fresh fish distribution considerably, but it is not the panacea which its inventors thought it would be. Our efforts so far as concerns the raising of our standards and to enlarge the market; and as I have said we are hopeful of good results.

Mr. Whitman then discussed the work of the Association as it would apply to the export trade. "I do not believe," said he, "that we could advocate much change in our bank fisheries. They are profitable to the fishermen and with their present cure, they can, taking one season and another, market practically all they can catch, and so far as I can see there is no way they could cure their fish, which would bring more profits than the one in vogue at present. We are however hoping to make an improvement in our pack of pickled fish, at least we will work with that purpose in view. The new Inspection Act which came in force last week is designed with this intention, and Mr. Cowie the Government expert will be here shortly to personally co-operate with the fish trades in assisting in its adoption. Meetings with the fishermen will be held at various places along the Shore and all who have a direct interest in the fisheries will be invited to co-operate in our work. The first annual meeting of the Association will be held at Lunenburg on the third Wednesday in September, and we are hoping to make it a great success. The recommendations made at this meeting will be passed along to the executive of the Association, the head office of which is at Montreal, and it in turn will pass these along to their final destination."

FISHERMEN MEMBERS OF THE CANADIAN FISHERIES ASSOCIATION.

Now that the Nova Scotia branch of the Canadian Fisheries Association has been formed, the men who handle the trawl and the twine will be able to become members of an organization which will do much to develop the fisheries of Canada.

For the subscription fee of one dollar a year, fishermen, lobstermen, splitters and individuals engaged in working either at sea aboard vessels or on shore in the fish sheds can become associated with the C.F.A. and have a voice in the affairs which directly affect them or their business. By joining the Nova Scotia branch, a member is affiliated with the Dominion Association and will receive all the reports and bulletins which will be issued from it.

Co-operation will be the key note of the Association's work and all engaged in the fishing industry of Canada will be encouraged to pull together for their mutual benefit. Nowadays, co-operation spells success. The days of individual effort is past in all industries. The man who employs men in his business finds out their views and endeavours to make things as harmonious as possible.

Fishermen, by joining the Association, will be in a position to keep pace with the times. They will learn of the numerous things likely to affect their business and how to remedy existing evils. They will have opportunities to present their views on a question and they will be considered as they could never be if no Association for mutual benefit existed.

In the ever-growing fisheries of the Dominion there are momentous matters cropping up daily—matters which can only be adequately handled by a representative body composed of those engaged in the industry. The up-to-date fisherman cannot afford to sail a lone course nowadays—it is a case of "United we stand. Divided we fall!"

The following scale of fees was adopted for the Nova Scotia branch of the Canadian Fisheries Association:

A firm employing ten hands $10
A firm employing ten hands $5
A firm employing three to five hands. $3
Individuals $1

The Secretary of the Nova Scotia branch is Mr. S. Y. Wilson, P. O. Box 358, Halifax, N. S., to whom all subscriptions should be sent for membership in the local branch.

PACKING OF MACKEREL.

There is every possibility that a good catch of mackerel will come to the twine of the Maritime Province fishermen this season and for the benefit of the fisherman who puts up a few barrels himself we would urge care in packing and uniform grading of fish. The fish packer who wishes to obtain the best prices for his fish will find it pays better to grade the mackerel himself before marketing than to pack bloaters, mediums and tinkers in the same barrel and leave the culling for the dealer to do.

The Pickled Fish Inspection Act of Canada which went into force on May 1st grades mackerel as follows:—

There shall be three classes of branded mackerel: Spring Mackerel, Summer Mackerel and Fall Mackerel. Spring Mackerel shall be graded as "Large", "Medium" and "Small". Summer Mackerel as No. 2 and 3; Fall Mackerel as Bloaters, No. 1, No. 2 and No. 3.

Mackerel to be classed as spring mackerel shall consist of mackerel taken during the spring and early summer.

Mackerel to be classed as summer mackerel shall consist of mackerel taken during the month of August and early September.

Mackerel to be classed as fall mackerel shall consist of fat mackerel taken during the fall months.

Large spring mackerel when finally packed for the brand shall consist of mackerel not less than 15 inches from the extremity of the head to where the flesh meets the tail (measured down the centre of the fish).

The mackerel shall be properly split and well washed. They shall have blood removed, and be regularly packed, uniformly salted and thoroughly cured.

Medium spring mackerel when finally packed for the brand shall consist of mackerel under 15 inches and not less than 13 inches from the extremity of the head to where the flesh meets the tail (measured down the centre of the fish).

The mackerel shall be properly split and well washed. They shall have all blood removed and be regularly packed, uniformly salted and thorougly cured.

No. 2 summer mackerel when finally packed for the brand shall consist of mackerel not less than 13 inches from the extremity of the head to where the flesh meets the tail (measured down the centre of the fish).

The mackerel shall show distinct signs of fat, be properly split and well washed; they shall have all blood removed and be regularly packed, uniformly salted and thoroughly cured.

No. 3 summer mackerel when finally packed for the brand shall consist of mackerel under 13 inches, and not less than 11 inches from the extremity of the head to where the flesh meets the tail (measured down the centre of the fish).

The mackerel shall show distinct signs of fat, be properly split and well washed; they shall have all blood removed and be regularly packed, uniformly salted and thoroughly cured.

Bloaters when finally packed for the brand shall consist of extra fat fall mackerel, and shall

count not more than one hundred fish to a full barrel.

The mackerel shall be properly split, well washed, white in colour, free from blood stains, regularly packed, uniformly salted and thoroughly cured.

No. 1 fall mackerel when finally packed for the brand shall consist of fat mackerel not less than 15 inches from the extremity of the head to where the flesh meets the tail (measured down the centre of the fish).

The mackerel shall be properly split, well washed, white in colour, free from blood stains, regularly packed, uniformly salted and thoroughly cured.

No. 2 fall mackerel, when finally packed for the brand shall consist of fat mackerel under 15 inches not less than 13 inches from the extremity of the head to where the flesh meets the tail (measured down the centre of the fish).

The mackerel shall be properly split, well washed, white in colour, free from blood stains, regularly packed, uniformly salted and thoroughly cured.

No. 3 fall mackerel, when finally packed for the barrel shall consist of fat mackerel under 13 inches and not less than 11 inches from the extremity of the head to where the flesh meets the tail (measured down the centre of the fish).

The mackerel shall be properly split, well washed and white in colour; free from blood stains, regularly packed, uniformly salted and thoroughly cured.

Mackerel packed in the manner prescribed above is eligible for the Government brand — a mark which will guarantee the contents of the barrel and safeguard the purchaser. Better and more even prices will result as there will be none of the "pig in a poke" transactions which featured the purchase of a barrel of mackerel in the past.

The Norwegian salt mackerel is carefully graded and largely governs the sale of the American and Canadian fish. Norwegian mackerel is put up in 200 lb barrels and graded as follows: — Large Bloaters— 90 to 100 fish in a barrel. Number Ones — 175 to 190 fish. Number Twos — 200 to 250 fish. Number Threes — 300 to 350 fish. Number Fours — 400 to 450 fish. Number Fives — 500 to 550 fish. Number Sixes — 600 to 700 fish.

However, the grading as set forth in the requirements of the Canadian Pickled Fish Inspection Act has been carefully thought out and will be the best for the marketing of Canadian packed mackerel. The larger netters and packers are well aware of the requirements of the Act and need no reminders, but it is to our friends — the small fishermen of the coves and outlying villages — that we strongly advise to put up this season's mackerel in the manner outlined. Above all, look to your barrels!

FISH vs MEAT.

One of the fallacies which seem to die hard is the erroneous idea which many people have that no person can do a hard day's work on a diet of fish. According to popular imagination, meat is the only food that will stimulate and satisfy the working man.

The CANADIAN FISHERMAN is continually illustrating evidence that fish is the equal and more often a better diet than meat for persons engaged in labour that calls for hardihood and endurance. A famous British medical man— Sir James Crighton-Browne— stated "That fish has formed the sole or principal animal nourishment of many races of mankind which have shown no lack of energy or failure in physical development. Our Scandinavian ancestors subsisted largely on fish..... the Japanese have been fish eaters for generations and the soldiers who won the war were brought up on fish and rice and showed conspicuous proof of bodily and mental vigour. In China, the country people practically live on fish, rice and vegetables and they are hardy in no ordinary degree and capable of enduring extra-ordinary fatigue, and of carrying for great distances a weight which an Englishman could with difficulty raise from the ground."

In the past we have quoted Lord Strathcona's incident wherein the men of an isolated Hudson Bay Company's post who had to live on fish all one winter were in better physical condition than those who lived on a meat diet. The fishermen and seafarers of the Scandinavian countries are all great fish eaters and hardier men could not be found.

As an instance of the popular fallacy, a Western fish firm sends us the following extract from a letter written to them by one of the officials of the Royal North West Mounted Police.

> "In reply to your letter of the 29th ult. with reference to fish being included in the rations for the R.N.W.M. Police.
>
> I can quite understand that fish is a desirable ration for prisoners confined in the penitentiaries, and possibly for soldiers doing ordinary Barrack duty, as it is light and easy of digestion, but it seems to me doubtful if it would be found sufficiently satisfying and stimulating for men performing the more onerous duties that the Police are called upon to perform."

The concluding words are what we take exception to as this statement has become a platitude which is handed out — parrot-like — whenever fish is proposed as a diet for persons doing hard and laborious work. That fish is light and easy of digestion is admitted — scientists will prove that it contains enough proteids and calories to develop energy equal to a similar ration of meat, yet because it is light and easy to digest, the masses believe that it is not enough to do a hard day's work upon.

The modern working man prefers to absorb a great steak as an energizer and the consequence is a feel-

ing of drowsy laziness attendant upon indigestion. The business man who wishes to accomplish much in a day knows well enough that he cannot work upon heavy meaty meals. The laboring man engenders a good appetite by his exertions and feels that he needs something substantial to fill the void. He generally does so and gets away with a huge piece of meat.

If an experiment were conducted between two gangs of men — one gang fed on a meat ration and the other on fish — it would be found that the men eating fish would do more work in a day than the others. Their energy has not been impaired by the somnolent influence exerted by the digestion of a heavy meal. The sooner the public become aware of this fact the better for the fish business, and for their living expenses.

PISCATORIAL PARAGRAPHS.

The dogfish are reported on the Western Banks.

Mr. S. Y. Wilson of Halifax, Vice-President of the C. F. A. was in Montreal recently.

Record live lobster shipments have been going forward from Nova Scotia to Boston via Yarmouth of late.

The Hon. John D. Hazen, Minister of Fisheries, underwent a serious operation in the Royal Victoria Hospital lately, but we are glad to hear that it has been successful and that he is on the high road to recovery. The Hon. T. W. Crothers is acting as Minister in his absence.

Heavy ice is reported as blocking the North Bay around the Magdalen Islands. Vessels attempting to make the Islands by way of the Straits of Canso have been ice-bound. Some schooners went north about to get their Magdalen baitings and managed to work through the ice. On May 12th, fifteen Bankers baited at Hospital and the fleet have been getting their baitings in ones and twos since.

The German submarines are playing havoc with the British fishermen. During the month over twenty trawlers have been sunk by the underwater boats. In some cases, the German commander allowed the crews sufficient time to leave the ships, but in others they sunk them with as little compunction as they displayed in sinking the "Lusitania". The British fishermen are showing their resentment of this method of warfare by enlisting in the Royal Navy and the Mine Sweeping and Patrol Flotillas in great numbers.

The Special Boston Edition of our worthy American contemporary the "Fishing Gazette" gives an interesting and authoritative history of the fisheries of New England and contains much information which called for patience and care on the part of the Editors. Fish men are notoriously pre-occupied with their own business. that the work of compiling a record like the "Fishing Gazette's Boston Edition" devolves very much upon the compilers and much of the data has, perforce, to be collected by them personally. We congratulate the Editor of the "Fishing Gazette" for the painstaking and monumental work accomplished by him.

1915 JUNE FISH DAY CALENDAR 1915

Sun.	*Mon.*	*Tues.*	*Wed.*	*Thur.*	*Fri.*	*Sat.*
-	-	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	-	-	-

A CHAPTER IN THE HISTORY OF THE NEWFOUNDLAND FISHERIES

Part II.

By J. W. McGRATH.

One of the first acts of Charles II after the Restoration was to pass an act which remitted the duties on salt used in the fishery, as well as on all apparatus used for fishing in Newfoundland. TheFrench fishing fleet, which during the Cromwellian period had been compelled to forfeit five per cent of the value of their catch were now exempted from such a measure, largely because the French government had secured a foothold on the southern coast, which was fortified and patrolled by their warships in the interest of their fishfleet.

The short reign of James II was an uneventful one for the Newfoundland fisheries. Fishermen were left to do as they pleased, being neither encouraged nor interfered with in their work; but this was only a prelude to the stormy days that were coming with the Accession of the new Sovereigns, William and Mary. The fishermen who, during the last reign had engaged uninterrupted, now abandoned their work, and became soldiers. The antagonism between the English and French monarchs was reflected amongst the fisher folk of both nations in Newfoundland. Fishing craft were turned into naval vessels and several hot engagements took place. Those fishermen that remained on shore were carrying on guerilla warfare. Attacks and counter attacks were made, but with no definite result, except that the splendid fishing industry ceased to be pursued. In the English formal declaration of war against the French, the following is set forth:

"It was not long since the French took license from the Governor of Newfoundland to fish upon the coast, and pay a tribute for such license as an acknowledgement of the sole right of the Crown of England to that island, but of late the encroachments of the French on His Majesty's subjects, trading and fishing there had been more like the invasions of an enemy than of becoming friends."

King William in the speech from the throne, 1698, advised parliament "to employ their thoughts . . . to take the state of the Newfoundland fishery into their consideration."

Another Act was passed nullifying a previous one of Charles II. reign which severely restricted the building of fishing stages and houses and which made the owners submit to the right of the Crown to confiscate the same.

The reign of Queen Anne was like the preceding one for the Newfoundland fisheries, but at the end of this reign the most important bill ever enacted dealing with our fisheries was passed—the treaty of Utrecht; a clause of which ran thus: "But it shall be allowed to the subects of France to catch and dry fish on that part of land only . . . of the said island of Newfoundland" known as the French shore extending from Cape Bonavista northward to Point Riche, and thus stretching along the whole northeast and northwest part of the island. The large majority of French fishermen had settled on the southern coast and thus were compelled to leave their holdings, which time being spring and fearing to lose a season's fishing, they very speedily did, and settled in Cape Breton.

The succeeding reign ushered in a period of peace and of gratifying developments in the fishing pursuits. While in 1713, there were approximately 600 craft and boats of all sizes fishing in Newfoundland, in the following year the number had increased to more than one thousand, while about one hundred and fifty thousand quintals of cod were secured. About this date the salmon fishery began to be generally engaged in. We find in old documents how one, Skeffington, was accorded by the Crown the sole right for twenty years to catch salmon over quite a large area of the eastern coast.

The very steady development of the fisheries characterizes the following reign, in Newfoundland. The arbitary sway of the Fishing Admiral, who enforced the law—to their own advantage—became so absolute as to attract the attention of the home government, who superseded them by the appointment of naval officers, and a resident Governor in 1729.

As the reign of George II everywhere portrayed the English instinct for expansion, so in the prosecution of the Newfoundland fisheries this fact is remarkably shown. The annual catch of cod fish rose to and maintained itself for years at one-half million quintals, while about 6,000 fisher folk made their permanent residences along the sea coast.

The catch per capita of the fishermen engaged averaged, in not a few cases, the extraordinary amount of one thousand quintals per season. This reign marks the first attempt in the prosecution of the seal fishery. So successful was the experiment that each succeeding year saw it being more extensively, and in general more profitably, engaged in.

Old records also read to the effect that about this time the whale fishery began to be carried on in these waters. From 1796 till 1807 American vessels came and engaged in the fishery, and yearly returned home nearly loaded with whale products. At this latter date, Anglo-Aemrican differences curtailed considerably American activities, and the fishery in consequence was scarcely at all followed.

From the beginning of the succeeding reign the French were persistent in their representation to the English government for possession of St. Pierre and Miquelon—two small islands about 10 miles from the south coast of Newfoundland—as a base for their fishing fleet. So hot became the discussion of this proposed concession that Chatham declared that the possession of these islands by France "was an object worthy to be contested by war."

Spanish fishermen who still continued to come to Newfoundland each spring and fish, were now legislated against. The Treaty of Paris, 1763, enacted that Spain "forever relinquishes all claims and pretensions to a right of fishing on the island"; but so remunerative had this great industry been to Spain, that numbers of ships still came—some in complete breach of the act;

others evading the law by securing Basque vessels, giving them English names, with an English master, and a mixed crew of English and Spaniards. What is known as "Palliser's Act" was passed in 1776. It was a measure for the promotion of the Newfoundland fisheries, an incentive to Englishmen to engage in them. An extract from this act is the following:—"That from and after January 1st, 1776, the bounties hereinafter mentioned will be paid annually for 11 years. . . . Such vessels must be built and owned by British subjects residing in England, not less than 50 tons burden . . . to be cleared . . . from an English port . . . they must catch on the banks not less than 10,000 fish to be landed on the east coast of Newfoundland before 11th July each year."

Bounty for each ship was £40 to the first 25 vessels making two trips to the Banks; next 100 vessels £20 each. Bounty for whale fishery £500 to the first vessel arriving with the largest quantity of oil. The design of this measure was fully secured. Much more interest began to be taken in these industries, so that at the expiration of the eleven years this stimulus had become permanent, for in 1804 the quantity of cod fish landed was over six hundred thousand quintals, as well as thirty-four thousand seals, while some thirty vessels of more than two thousand tons burden were built on the island in one year. Ten years later, 1814, was one of prosperity for the country—the extraordinary catch of one million quintals of cod was landed, valued at one million and a half pounds sterling. A catch of one hundred and twenty thousand seals was secured for which goods were paid. This year's successful fisheries was a great inducement to bring settlers to the country and some thousands settled here the following season. But the cycle of prosperity that has always seemed to follow the country's history was on its last lap; and the following year the reaction set in. America had made peace with England at Ghent, and her fishery products, as well as the Norwegian article poured into the Mediterranean ports. The new emigrants that had arrived were unprovided for, a commercial panic reigned in the country. The people were brought face to face with starvation as the climax of this destitution was reached in the winter of 1815, when the country was encased in floes of ice. The judicious and economic handling of the situation by Captain Buchan R.N., saved thousands from perishing, and averted lawlessness of hungry mobs. The crews of Her Majesty's ships were rationed; the whole country was divided into sections, and each section systematically cared for. All this work was supervised by Captain Buchan, to whom the country was deeply indebted. By treaties signed with the French in 1815, the old dispute over the possession of St. Pierre and Miquelon was settled by its reverting to the French.

After the formation of the United States of America restrictions of a character more or less severe were put upon American fishermen fishing in Newfoundland, but largely through the generosity shown by American citizens in relieving the distress prevalent amongst the people of Newfoundland during the years 1814-1820, an Anglo-American Convention agreed that: "The inhabitants of the United States should have . . . the liberty to take fish of every kind . . . on the southern coast of Newfoundland . . . . from Cape Ray to Rameau Islands, on the western and northern coast from Cape Ray to the Quirpon Islands . . . also on the south coast of Labrador, through the strait of Belle Isle and thence northwardly indefinitely. . . ."

The next twenty years were mostly a period of prosperity for the fishermen. During this time home government was granted to the colony, and with its event the rule of the fishing admirals and the days when the country was a "no man's land" passed away forever. About this period the great sealing industry, which had been precariously prosecuted for years and years, began to develop. Vessels adapted for the ice were built, and soon a whole fleet of schooners was prosecuting this fishery. The fishery was short, lasting about two months—March and April, and was generally very highly remunerative. Bills of thirty pounds sterling being very commonly made.

In 1862, two Dundee whalers came to Newfoundland to participate in the seal fishery as a test for more extensive operations. The two whalers, however, became jammed with an ice blockade, and secured nothing. The incessant gales of wind, which blocked the ice on the land brought with it the main body of seals close in on the coast of Notre Dame Bay. The inhabitants hauled hundreds of thousands of seals, many becoming rich in a few days. One firm, Muir and Duder, reaped a profit of £25,000.

From this time onward our dispute with the French Government over fishery concessions increased. An enactment known as the "Bait Act" was passed in 1887 forbidding the French, who had always previously bought their bait from the people of the country, to do so any longer. This had the effect of making the French fishery a failure, as they were compelled to bring out from France each season a supply of salted bait—a very inferior article. This legislation on the part of the English Government was in retaliation for claims made by the French, respecting their status in the colony.

Much conference and deliberation was given to the difficulty, and both sides were anxious to find an amicable solution. In the interim, however, the French smuggled quantities of bait sufficient to enable them to prosecute the fishery. The Newfoundland government had to requisition a patrol boat to prevent this smuggling.

In 1904, as a result of long conventions, an act was passer by which the French relinquished all claims on the island of Newfoundland, which hereafter was to form a part of His Majesty's Dominions.

St. Pierre and Miquelon reverted to the French, and thus the racial jealousies and difficulties that had ever retarded the economic progress of the country disappeared forever.

CANADIAN SUPPLIES FOR BRITISH FACTORY.

A company has been established in the north of England to pack all kinds of canned goods. The opportunities for trade which the venture offers to Canadian firms are outlined below and exporters are invited to quote offers covering delivery to north of England ports, which will at once be placed before the parties interested by the Trade and Commerce Department, Ottawa.

At present the company are packing sardines, but it is intended at a later date to take up the canning of salmon. To meet the requirements of their trade, they anticipate that their consumption of frozen fish for canning will average one ton per day. It is accordingly their desire to get into touch with fishing companies in British Columbia from whom supplies of frozen salmon could be obtained on and from March, 1916.

NOVA SCOTIA BRANCH OF THE CANADIAN FISHERIES ASSOCIATION

Minutes of the First Organization Meeting.

A meeting of those interested and engaged in the Fish and Lobster business convened on Tuesday, April 27th, for the purpose of forming a Nova Scotia branch of the Canadian Fisheries Association. Among those present were: Messrs. A. Handfield Whitman, S. Y. Wilson, G. W. Rowlings, F. W. Bissett, R. H. Williams, C. H. Mitchell, all of Halifax; and Wm. Hodge, John Swimm, H. R. L. Bill, of Lockeport; W. M. Gardner, of Lunenburg, N.S.; Ward Fisher, of Shelburne.

Mr. Whitman was asked to take the chair, and in doing so, stated that the meeting had been called with the object previously stated in view. He outlined what had been done at the organization meeting of the parent association, of which Mr. S. Y. Wilson was Vice-President, and he, a member of the Nova Scotia portion of the Executive, and further stated it would be in order for someone to move a resolution, so that the meeting could proceed.

Mr. Gardner moved, seconded by Mr. Hodge, that a Nova Scotia Provincial branch of the Association be formed at this meeting. Motion put and carried.

The chairman then called upon the Acting Secretary to read any correspondence he may have received.

A telegram was read from Mr. D. J. Byrne, of Montreal, President of the parent association, which read as follows:—

"Understand holding meeting for organization Maritime Branch Fisheries Association Tuesday. Convey best wishes for successful meeting and assure members hearty co-operation. Regret cannot be with you, but will endeavor attend your next. Canadians should take pride in our natural resources, and the fisheries are among the most important."

A telegram was also read from the Secretary of the parent Association, which read as follows:—

"Hope Nova Scotia Branch will be successfully organized. Best wishes."

Also from the firm of S. R. Griffin & Sons, Isaac's Harbor, regretting their inability to attend on account of steamer being too late, but promising their support; also read letter from Mr. Henry D'Entremont, of Lower East Pubnico, regretting his inability to attend, but heartily supporting the objects of the Association, and making several suggestions; also a letter from W. C. Smith and Company, Limited, of Lunenburg, stating they would have a representative (Mr. Gardner); also from A. N. Whitman & Son, of Canso, stating they were in full accord with the project, but on account of Mr. E. C. Whitman's absence from the Province, would not be represented.

The matter of By-laws and Constitution was then taken up, and it was moved by Mr. Rowlings, seconded by Mr. Bissett, that Mr. Hodge and Mr. Wilson be a Committee to revise and amend the Constitution and By-Laws of the Dominion Association, so as to make them applicable to the Provincial Association.—Motion put and carried.

The Chairman then stated that it would be necessary to give an expression of opinion regarding dues, so that the Committee on By-laws could govern themselves accordingly.

Several suggestions were made on this point. Mr. Hodges also suggested that meetings be held at different points where the fisheries were most actively prosecuted, for the purpose of stimulating interest in the Association.

Officers.

Mr. Rowlings moved, seconded by Mr. Bissett, that the Executive of the Provincial Association be composed of a President, a Vice-President and Executive Committee of five—seven in all.—Motion put and carried.

On motion, Mr. Bissett, seconded by Mr. Wilson, Mr. A. Handfield Whitman was nominated President.

On motion Mr. Bissett, seconded by Mr. Wilson, Mr. Hodge was nominated Vice-President.

On motion, Mr. Rowlings, seconded by Mr. Bissett, Mr. S. Y. Wilson was nominated Secretary-Treasurer.

On motion Mr. Rowlings, seconded by Mr. Wilson, Mr. Gardner was nominated a member of the Executive, representing the Bank Fisheries.

On motion Mr. Rowlings, seconded by Mr. Gardner, Mr. R. H. Williams was nominated a member of the Executive, representing the Lobster interests.

On motion Mr. Wilson, seconded by Mr. Mitchell, Mr. W. P. Scott, of Matthews & Scott, Queensport, was nominated a member of the Executive, representing the fresh fish trade.

On motion Mr. Wilson, seconded by Mr. Bissett, Mr. H. B. Short, of Digby, was nominated a member of the Executive, representing the Smoked Fish industry.

On motion Mr. Mitchell, seconded by Mr. Hodge, Mr. Rowlings was nominated on the Executive, representing the Pickled Fish industry.

There being no other nominations for the different officers mentioned above, the President declared those so nominated, elected.

The meeting then adjourned until 2.30 p.m., when the Committee on Constitution and By-laws was asked to report.

Meeting resumed at 2.30, those present being:—Messrs. A. H. Whitman, S. Y. Wilson, C. W. Rowlings, G. S. Lee, F. W. Bissett, R. H. Williams, J. A. Neville, W. M. Hodge, W. Fisher, W. Gardner, H. R. Bill.

The first matter to come under discussion was the Fisheries Inspection Act, which comes into force the 1st of May next.

Mr. Fisher stated that considerable interest was taken in the Act along the shore, and of late there had been a disposition among the fishermen to use better containers.

The different phases of the Act was debated, and the following resolution was moved by Mr. Hodge, seconded Mr. Gardner:

"That the meeting appoint a Committee to inquire into and report on the advisability of asking the Federal Government to amend the Fisheries Inspection Act of 1914, so that it be made compulsory within a year, or that it be subsidized—or that the inspection of mackerel become compulsory; also that the count be conspicuously shown on the outside of the barrel."

Motion carried.

The Chairman then called for names to constitute the Committee, and the following were appointed:—Messrs. Morris Nickerson, of Clarke's Harbor; Robert T. Matthews, of Queensport; C. H. Mitchell, of Halifax; A. H. Whitman, of Halifax; and J. A. Neville, of Halifax.

Constitution and By-Laws.

Mr. S. Y. Wilson reported for the Committee of the Amendments of the Dominion Constitution, so as to make it applicable to the Provincial Association. These were approved of.

Next Meeting of Association.

The President stated this was an important matter, and he considered the suggestion made at the morning meeting of holding subsequent meetings at different points, should be carried out.

It was then moved by Mr. Hodge, seconded by Mr. Wilson, that the next meeting of the Association be held in Lunenburg, the third week in September next —Motion put and carried.

Modus Vivendi.

The Secretary read the following resolution passed by the Fisheries Committee of the Halifax Board of Trade, and, subsequently, approved of by the Council of that body:—

"Unanimously resolved to request the Dominion Government to put in force the same regulations in regard to American fishing vessels making use of Canadian Atlantic ports as was put into effect by Orders-in-Council dated March 9th, 1915, respecting British Columbia ports, with the exception that a license fee be charged of 50 cents per ton net register and that all crafts prosecuting the Lobster Fishery be excluded."

The Orders-in-Council referred to read as follows:—

"Orders-in-Council, dated March 9, 1915.

"During the present calendar year (1915) foreigners or foreign corporations bringing fresh fish in vessels registered in the United States of America to any port in British Columbia shall be permitted to land fresh fish at such port without payment of duties and tranship the same in bond to any port in the United States, or to sell such fish in bond to such local dealer or dealers as may be properly and duly licensed therefor, under regulations and conditions herinafter mentioned, which dealer or dealers shall export the same in compliance with the bonding requirements (without the right, however, in either instance to sell in Canada for consumption therein, or otherwise except in bond, any of such fresh fish so landed), and such foreigners and foreign corporations bringing fresh fish in vessels registered in the United States of America to any port in British Columbia, shall be permitted to purchase supplies, and ship crews for such vessels at any port in the said Province of British Columbia, the whole under such regulations and conditions as the Minister of Customs may determine."

This brought forth a general discussion, Mr. Fisher contending that the Canadian fishermen should not be compelled to call at a Canadian port for clearance being able to enter his fish at American ports. Mr. Gardner, Mr. Swimm, and Mr. Hodge considered, however, that there was nothing in this contention, as they would probably do this anyway, for the purpose of supplies, etc.

Mr. Gardner then moved that this Committee concur in the resolution of the Halifax Board of Trade; this was seconded by Mr. Hodge.—Motion put and carried.

It was decided that the Committee on Constitution and By-laws have same printed, and that the fishing interests throughout the Province be invited to join the Association.—Meeting then adjourned.

THE MINE-SWEEPERS.

(By H. Ingamells.)

"'Ware mine!"
"Starboard your helm!" . . "Full speed ahead!"
The squat craft duly swings—
A hand's breadth off, a thing of dread
The sullen breaker flings.

Carefully, slowly, patiently,
The men of Grimsby Town
Grope their way on the rolling sea—
The storm-swept, treach'rous, gray North Sea—
Keeping the death-rate down.

Cold is the wind as the Gates of Death,
Howling a dirge with its biting breath,
Tearing rude music from rigging taut—
The tune with deadly omen fraught:
"Look to yourselves, oh, sailors bold—
I am the one ye know of old!
I make my sport with such as ye—
The game that is played on every sea
With death as the loser's penalty!"

Valiantly, stoutly, manfully,
The trawlers fight the gale;
Buoyant they ride on the rolling sea—
The storm-swept, treach'rous, gray North Sea—
Lasht by the North Wind's flail.

Cruel the waves of that ocean drear,
Whelming the heart with a palsying fear,
Hurling their might on the stagg'ring craft,
Crashing aboard of her fore and aft,
Buffeting, pounding, a dreadful force,
Sweeping her decks as she hugs her course.

Little they care, come wind or wave,
The men of Grimsby Town;
There are mines to destroy and lives to save,
And they take the risk, these sailormen brave,
With a laugh and a joke, or a rollicking stave,
As the gear goes plunging down.

Honor the trawler's crew,
For Fear they never knew!
Now on their quest they go
With measured tack and slow—
Seeking the hidden fate
Strewn with a devilish hate.

Death may come in a terrible form,
Death in a calm or death in a storm,
Death without warning, stark and grim,
Death with a tearing of limb from limb,
Death in a horrible, hideous guise—
Such is the mine-sweepers' sacrifice!
Careless of terrors and scornful of ease,
Stolid and steadfast, they sweep the seas.

Cheerfully, simply, fearlessly,
The men of Grimsby Town
Do their bit on the rolling sea—
The storm-swept, treach'rous, gray North Sea—
Doing their duty unflinchingly
Keeping the death-rate down.

—In London Spectator.

REPORT ON THE OTTER-TRAWL FISHERY

By A. B. ALEXANDER, H. F. MOORE & W. C. KENDALL.

A Series of Extracts from the United States Bureau of Fisheries Report.

Until 1905, American vessels fishing for demersal or bottom fish on the banks adjacent to the coast of the United States or on the more distant banks off the coast of Newfoundland and Canada confined themselves to the use of hand lines and trawl lines, the nature and methods of the use of which will be described later in this report. This fishery was, and is, conducted solely by sailing vessels.

In the year mentioned, the steamer Spray was built at Quincy, Mass., for Boston owners, the Bay State Fishing Co. She was constructed on the general plans of British fishing steamers and was equipped for using the otter trawl, an entirely new method of fishing on the coast of the United States, also described further on in this report. In 1910, two more steam trawlers were built for the same owners, and in each of the years 1911 and 1913 three similar vessels were added to the fleet. In addition, a converted yacht owned in New York began fishing in 1912, and a small vessel owned in Gloucester sometimes uses an otter trawl. In the winter of 1914-15 a menhaden steamer entered the fishery. These, with the Coquet, a Scottish vessel which made several trips into New York, are the only vessels which have used otter trawls out of American ports or which have carried fares taken with otter trawls into such ports. The fishery has always been conducted predominantly out of Boston, and at present is practically confined to that place.

Although the merits and demerits of beam trawling and otter trawling, which are essentially similar, had long been the subject of much controversy and numerous investigations in Europe, there never had been occasion for either in the United States until the rapid augmentation of the Boston steam-trawling fleet after 1910 aroused the line fishermen to apprehension concerning the conservation of the fishing banks and a realization that they were face to face with a possible revolution in the methods of fishing.

As an outcome of this alarm, and in response to the appeal of the line fishermen and related fishery interests, the investigation on which this report is based was made.

Otter-Trawl Vessels.

There are at the present time nine steam vessels regularly engaged in the otter-trawl fishery from American ports. These vessels were designed and constructed especially for this industry. There are also two other steam vessels employed in otter trawling, one a converted yacht, the other a menhaden vessel.

The typical steam otter trawler is a two-masted steel steamer, about 115 feet in length between perpendiculars, with a beam of 22 feet and a depth of 11 to 12 feet, and equipped with an engine of 450 indicated horsepower. The hull is strongly constructed, and shows sturdy, seaworthy lines, with considerable shear. Vessels of this class range in size from 248 to 296 gross tons, and are quite similar in the character and arrangement of their gear.

The forecastle deck is usually built up and covered in with a turtleback, forming a storeroom for fishing gear, and providing a breakwater which prevents the shipping of water over the bow. From here the deck is clear aft to the wheelhouse, which is situated about midships, over the fire room. From this point a low house runs aft in the center of the vessel, leaving a clear passage on both sides, and a considerable space of clear deck at the stern. A low bulwark extends entirely around the vessel.

Just forward of the wheelhouse stands the trawling winch, consisting of two drums, steam driven, on which are wound the two wire cables which operate the net. In front of the winch is a hatch leading to fish hold.

The forward deck is divided by low, removable partitions, or "checkers," forming a series of pens of various sizes for the retention of fish during the operations of sorting and cleaning.

On each side of the vessel, fore and aft, stand the "gallows"; steel structures which support the sheaves through which the wire cables go outboard. These are usually in the form of an inverted U, inclined slightly outward. The forward pair stand slightly in advance of the foremast, and the after pair about abreast of the mainmast.

The otter trawl, as used by steamers fishing out of Boston, is essentially a large, flattened, conical bag, which is towed along the bottom of the sea. The mouth if this bag is kept open laterally by two large boards, or doors, one on each side, so rigged that they operate like kites. These boards are secured to the towing warps by chain bridles, so adjusted that as the trawl is towed along the resistance of the water causes the boards to pull away from each other, thus spreading the bag.

This conical bag is about 150 feet long. That portion of the mouth of the bag which lies on the sea bottom is secured to a foot line 140 feet long, reaching from board to board. The upper edge of the mouth is secured to a shorter headline, 110 feet long, also reaching from board to board. In operation this headline, being shorter, causes the top of the mouth of the bag to extentd considerably in advance of the lower portion.

The otter boards are usually about 10 feet long, 4 feet high, and 2½ inches thick and are heavily shod and reinforced with iron. At ordinary towing speed their kite-like action extends the mouth of the net laterally to a width of from 70 to 90 feet. The flow of water into the net tends to keep it open vertically, but this force is assisted by a painted canvas float close to the centre of the headline.

The foot line is a wire cable served with marline and wound with rope, giving it a diameter of about 4 inches. This wrapping tends to prevent the line from cutting into the bottom, and thus reduces the wear and tear on the net. Chafing gear, consisting of sections of old nets, is used for further protection.

The nets themselves, which are all imported, are constructed of strong manila twine, with a mesh of about 3 inches square in the forward third of the bag. The central third has a mesh about 1½ inches square. In the last third of the net, or cod end, the twine is doubled. This makes the knots larger and reduces the size of the mesh to about 1¼ inches square. The end of the

Diagram Showing Otter Trawler in Operation.

cod end is open and is secured, while fishing, with a draw string.

In setting the trawl, the wire cables are run through fair leads to and through the gallow sheaves, one forward and one aft on the side from which it is proposed to set. The cables are then shackled to the chain bridles of the otter boards, which are in turn secured to either wing of the trawl. The vessel is then brought bea mto the wind, the net being on the windward side. The cod end is then tied up and put overboard, the balance of the net being paid out as the vessel drifts to leeward away from it. The float (usually a balloon-shaped canvas bladder) is secured to the centre of the top of the bag. The net is now all gone into the water, with the exception of the ends of the wings, which are attached to the otter boards hanging at the gallows.

Both towing warps are now slowly paid out for a short distance, and the vessel moves slowly ahead, turning toward the side from which the net is being set. This is continued until the otter boards have spread the net properly, and the whole apparatus has assumed the position for fishing. The cables are then paid out until the net has reached the bottom, when they are stopped and shackled together near the stern of the vessel.

The trawl is now towed slowly along the bottom at a rate of from 2 to 3 miles per hour, usually for about 1½ hours. Then the cables are released from the shackle at the stern, the winches are started, and as the net comes up the vessel is again brought broadside to the wind, with the net to the windward, and stopped. The otter boards are brought right up to the gallows blocks, and the net is further brought in by quarter lines run to the gypsy heads of the trawling winches, the crew taking in the slack of the net by hand. When the ends of the quarter lines are in, the foot rope of the net lies close alongside the vessel.

The remainder of the net is taken in over the side by hand until the cod end, which contains the catch, is reached. The throat of the cod end is now folded over and bunched together; a sling is passed around it, to which it attached a fall from the derrick boom on the foremast. A winch now hoists the cod end, with its contents and swings it inboard, where it is lowered over one of the checkers. The draw string is now released, and the catch falls out onto the deck.

If fishing is to be continued in the same locality, the trawl is immediately again set as before, and the crew start at once to sort, clean, and stow the marketable fish and dispose of the trash. This work is accomplished in the following manner:

Two or more men, armed with pitchforks, attack the pile of fish in the checker, heaving overboard the skates, dogfish, monkfish, and other species considered worthless, and tossing the haddock, cod other marketable fishes into separate checkers. Here these fish (excepting the flat fish), are immediately cut and gutted, a stream of salt water from a hose washing away the blood and gurry. The livers of the cod, haddock, etc., are usually saved. The gutted fish are now forked into a bin where they are further washed by a stream of salt water. When this bin is full it is opened by means of a hinged bottom, and the fish fall into the hold, where a man is stationed who packs them away in pens with chopped ice. The flat fish are packed in ice without cutting or cleaning. The fish being stowed, the hose is turned onto the deck and the checkers cleaned in readiness for the next haul.

Fishing continues day and night. The crew is divided into two watches, working six hours each. The average number of hauls per 24 hours, under ordinary cir-

cumstances, is about 10 to 12, although this will vary according to the nature of the ground, the amount of net mending necessary, and the weather. Including the passage to and from the fishing grounds, from four days to a week is usually required to get a full fare of fish.

Denudation of the Bottom by Otter Trawlers.

One of the most vigorously urged objections to the use of the otter trawl is that it tears loose, dislodges, crushes, and destroys the marine animal and vegetable growths which in places cover the bottom on the fishing banks. It is upon these sessile or attached organisms and the animals of many kinds to which they give harbor that the bottom fishes feed, and if it can be shown that any method of fishing or any practice of the fisheries denudes the bottom of any considerable portion of these growths, it would establish abundant reason for regarding such fishery or practice as inimical to the productiveness of the banks.

The attached animals on the banks consist generally of sponges; hydroids and bryozoans, collectively called "sea moss" by the fishermen; ascidians, known as "lemons" and "strawberries"; sea anemones; mussels and other mollusks; burrowing and tube-building worms ("macaroni"); barnacles, etc. With the exception of many of the worms which burrow in sand or mud, the sessile forms are attached to rocks, pebbles, and shells, or to one another. Finding shelter among these or lying on the bottom are various species of crabs, shrimps, and other crustaceans; scallops, clams, and other bivalve mollusks; a variety of gasteropods or snail-like mollusks; many starfishes and brittle stars; sea urchins; sea cucumbers or "pumpkins"; worms; and fishes of various kinds, all preying or being preyed upon and in complex and intimate relation to one another generally. There are many minute animals and plants on the bottom and on the bottom growths or in the overlying water. Of these the microscopic plants are highly important, as they, with the seaweeds, are the fundamental source of food, direct or indirect, of all marine animals. Some of the fishes feed directly on these organisms, while others feed on animals which either consume them directly or at some more or less proximate stage find them in the chain of elaboration of their food supply.

The immediately important commercial fishes taken by the line trawlers are haddock, cod, and, to a less degree, hake. The same market fish with the addition of the "sole" are taken by the otter trawlers. Both methods of fishing catch a few halibut and certain edible fishes which are not marketed. The haddock and the cod are the principal species sought, and were it not for these the bank fisheries would not exist under present economic conditions.

Both of these fish are bottom feeders, and while they feed to some extent on young or small fishes, their diet consists principally of invertebrates such as constitute the bottom fauna of the banks. They all sometimes contain pieces of herring and similar fishes, but there is good reason to believe that in most cases these are baits taken from the lines. Most of the food consists of echinoderms (starfishes, brittle stars, sea urchins, and sea cucumbers; lamellibranchs (scallops, mussels, and other bivalves); gasteropods (various snail-like mollusks); crustaceans (crabs and shrimps); and annelids (worms). Although these fishes spawn on some of the banks, they resort to them primarily for food; and there is no doubt that if the bottom growth were destroyed the productiveness of the fishing banks would be seriously impaired if not destroyed, and it is therefore important to the present inquiry that the methods of fishing now pursued should be considered in relation to their effects on the denudation of the bottom.

In this respect the trawl-line fishery is innocuous and need not be discussed, but the otter trawl operates in such manner as to raise a valid assumption against it and to demand a critical examination of its effects. As the otter trawl, as a whole, sweeps over an area of about 80 acres at each haul and many square miles in the course of a year's fishing, the assumption has been that its effects on the bottom growths of necessity must be disastrous; and the observers on the steamers were instructed particularly to note the quantity and character of the bottom materials brought up. Most of the sand, broken shells, and other fine material not bound together by worm tubes, etc., undoubtedly would wash through the mesh and would not figure in the load landed on deck, but a large part of the bottom growth, which, and not the bottom itself, is the important factor in the present inquiry, would come up in the trawl.

Much of the data submitted by the observers are too vague for quantitative consideration, but one man definitely states the quantities in bushels in his monthly analysis of the results of his observations on each bank. From his returns it is deduced that the average quantity of scallops, clams, shells, sponges, starfishes, and bottom material generally, varied with the month and the locality, from a small fraction of a bushel to 4.7 bushels per haul, the latter being the average of 26 hauls made in South Channel in August, 1913.

A simple computation shows that this maximum represents a film 0.00024 inch in thickness spread over the area swept by the trawl, or, to state the case in another way, a little pile of material 1 foot square and 9 inches high on each acre traversed. This means either that a small proportion of the existing bottom material was captured by the net, which is probable, or that there was very little material to take. In either case, the result to the fishery is trivial and negligible, as the whole quantity, shells and all, if eaten by the marketable haddock and cod alone taken in the same hauls would constitute a morsel of but about 2½ cubic inches for each—a very small meal, indeed—and leave nothing for the many other fishes taken at the same time.

But, the evidence shows, this material was not destroyed but thrown overboard when the decks were cleared after each haul, the uninjured organisms in large part to carry on their lives as before, and the dead shells to lie again on the bottom and serve as places for attachment for other growths. Any crushed scallops, mussels, etc., undoubtedly would be eaten by fishes or by animals on which the fishes feed, for no dead organic matter is permitted to lie long unutilized on the floor of the sea. Fragments of sponges would each begin to grow into a new sponge, and mutilated starfishes would soon reproduce the injured or lost parts, if they did not fall prey to the fishes in the meantime. This modicum of captured and liberated material would, therefore, be little if any diverted from the function which it would have discharged if it had remained unmolested on the bottom. It is claimed, however, that but part of the damage wrought to the bottom by the trawls is represented by the material brought up in the nets, greater quantities of the bottom organisms being torn loose, crushed, and mutilat-

ed. To the extent that this may be true, the preceding remarks on the utilization of the detached and injured organisms also apply. It is, of course, impossible to observe the action of trawls operated in depths as great as are found in the bank fisheries, but by an examination of the catch, the method of operating the apparatus, and comparison with the known effects of similar appliances, conclusions of some value may be deduced.

There are three parts of the otter trawl which scrape the bottom: The boards, the foot line, and the net itself. The boards each weigh about 1,500 pounds in the air or about 900 pounds in the water, and as they are 12 feet long and 2½ inches thick they bear on the bottom with a pressure of a little less than 3 pounds to the square inch. This is a little less than the standing pressure of an average man. When the net is fishing, the otter boards are set with the short sides vertical and their long sides at an angle of about 20 degrees or less to the direction of motion, and as they are 12 feet long each scrapes a strip about 4½ feet wide. As the average haul of an otter trawl is about 6 miles, the two boards scrape on each haul a surface of about 6½ acres. An average of about 35 hauls was made on each trip observed, and on this basis it is

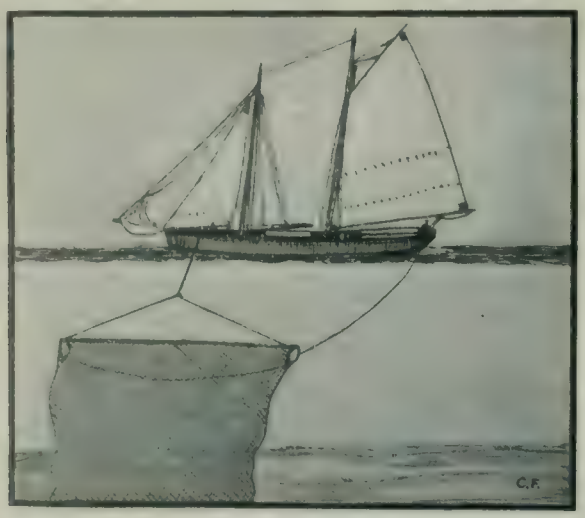


Diagram of the Beam Trawl.

computed that on the 326 trips made by the steam trawlers in 1913 the boards alone scraped about 115 square miles of the bottom, provided they were in constant contact.

The footline or ground rope forms the front border of that part of the net lying on the bottom. It stretches in a curve between the otter boards, is about 140 feet long, and 3½ to 4 inches in diameter. It is composed of a core of steel wire rope about 1 inch in diameter, heavily served with marlin and rope partly to protect the wire from chafing, but principally to prevent undue cutting into the bottom. The ground rope weighs about 800 pounds in the air, but as rope is but little heavier than water and the wire weighs not over 150 or 160 pounds, it is certain that when at rest it does not exert a pressure in excess of 2 pounds per linear foot.

The ground rope sweeps over a strip about 100 feet wide, and using the same data employed in the discussion of the otter boards this would cover an area of about 73 acres per haul and about 1,300 square miles for all hauls made by the steam trawlers in 1913.

The net with its chafing gear, a device of old netting to minimize abrasion on the bottom, weighs about 800 pounds in air, but very little in water. As fish weigh but little more than water, the catch adds nothing to the pressure of the net on the bottom unless it includes stones, sand, shells, and other heavy materials. The net, being attached to and following the ground rope, sweeps over the same area.

The otter boards, by virtue of their inclined position to the line of draft through the water, act, when resting on the bottom, like the scraper of a road machine, such material as they dislodge or tear loose passing backward and inward toward the net. As the purpose of the boards is to spread the net laterally, no useful purpose is served by permitting them to plow deeply, and the ideal practice is to have them skim over the bottom as lightly as possible. The drag of the towing warps, inclining upward toward the vessel, tends to lift the boards, especially at the forwar dends, and this tendency increases with the speed at which they are towed and, at any given depth, inversely with the length of warp paid out. With the speed too great or the warp too short, the boards and with them the net may be lifted quite clear of the bottom. A slight lifting of the boards is permissible and perhaps desirable, but if the ground rope raises materially, the efficiency of the net is impaired.

The only parts of the otter trawl which have sufficient weight to effectively scrape the bottom of its attached organisms are the boards, and they cover but about 10 per cent of the sweep of the net and undoubtedly are much of the time largely and part of the time wholly supported by the draft of the towing warps.

It is believed, therefore, that denudation of the bottom is not a momentous factor in any injury which may be wrought to the fisheries by the otter trawls.

Destruction of Spawn by Otter Trawlers.

The allegation sometimes made that the otter trawl destroys the spawn of food fishes can be dismissed with a simple negation. The eggs of all of the important food fishes of the New England coast and the banks, except the herring, are pelagic; that is they float at or near the surface.

The only destruction of spawn is that involved in taking spawning fish, and such fish are also taken on hand lines on Georges Bank at least and by nets along the coast.

Interference of the Otter Trawl With Other Fisheries.

The observers on the vessels were instructed to make note of all cases in which lines or other fishing gear were destroyed or interfered with by the steam trawlers. Very few cases of such destruction or interference were noted.

Mr. Walter H. Rich, who served from June to November, inclusive, most of the time on steam trawlers, but who made a number of trips on trawl liners, says: "The captains of all steamers use care in avoiding the trawls of the sail fleet when possible, often taking up the net before a haul was finished when they approached a line of dories engaged in fishing. On two occasions only did the writer see the gear of the line trawlers fouled in the net, both in thick fog, and in each case the line was cut and knotted together and put overside with no apparent damage to the gear."

Mr. John N. Burrows, who made 10 trips on trawl liners between June 24 and December 29, most of them on banks fished by the otter trawlers, and served on otter trawlers from April to December, reports no cases of interference; and Mr. Thomas M. Douthart,

who made observations on the steamers from January 17 to May 1 and one trip on a schooner, says: "The trawlers make particular effort to keep clear of other fishing gear."

The testimony of the other observers was similar, and there is no doubt that during the year 1913 the damage to trawl lines was negligible, and what little did occur was unintentional.

General Economic and Sociological Questions.

The general economic and social effects of a change in the character of the bank fisheries, due to the introduction of otter trawling, are matters which we do not regard as within our province to discuss in detail. We believe that the unregulated use of otter trawls will inevitably result in the practical displacement of the less efficient line fishery, and that this will induce a change in the character of the men manning the fleet, as the substitution of steam for sail power has changed the type of crews in the merchant marine and in the Navy. There is also the probability, in fact almost the certainty, that the change would result in a reduction in the number of individual vessel owners and the concentration of ownership of fishing craft in the hands of a comparatively small number of firms and corporations. Whether or not these changes be desirable is a matter to be judged by the same criteria governing opinion respecting similar phenomena affecting other industries.

The regulation of the fisheries is predicated on the necessity of providing and conserving a common food supply, and the special protection which it receives at the hands of the Government is to that end. The consideration of broad subjects of social welfare should be divorced from special application, and we do not regard them as germane or peculiar to the investigation with which we are charged.

It should be indicated, however, that the changes enumerated would have, in addition to a great reduction in the number of men employed on the fishing fleet, certain collateral results of wide reaching effect. The men employed in catching bait* would lose their calling; the cold-storage plants preserving food fish and bait at various places on the coasts would lose a material part of their business; shipbuilders, manufacturers, and artisans employed in supplying the sailing fleet would find their business destroyed or seriously curtailed; and a wide economic readjustment would be obligatory in many communities.

On the other hand, the general substitution of otter trawls for lines will result in the stimulation of steel shipbuilding and related industries and furnish additional markets for coal, oil, and engineering supplies. The trawl nets are now purchased in Great Britain. A canning establishment which recently began utilizing the bank fishes now depends largely on the otter trawls for its raw material. Whether its continuance is contingent on the permanence of the otter-trawl fishery is not known to us.

Effects of Otter Trawling on the Price of Fish.

An important element in the case of lines versus otter trawls is whether the introduction of the admittedly more efficient apparatus will result in a reduction in the cost of fish. The consumer, who is the factor of paramount economic importance, rarely is heard when industrial legislation is being considered, and for that reason we have departed from our avowed purpose to refrain from discussion of general economic matters not peculiar to the fisheries and have endeavored to arrive at an understanding as to the probable effect of otter trawls on the trend of prices. For this purpose we have examined the prices at which the important species of the cod family and fresh fish as a whole have sold in Boston during each year since 1898. These data are shown in the following table and in the diagram based thereon:

Prices received by fishermen for fresh fish landed at Boston, 1898 to 1914, inclusive.

Year.	Cents per pound. Cod.	Haddock.	Hake.	All Fish.x
1898	2.1	1.7	0.9	1.8
1899	2.2	2.2	1.1	2.1
1900	2.2	2.0	1.4	2.2
1901	2.7	2.4	1.5	2.6
1902	2.4	2.2	1.7	2.4
1903	2.9	2.2	1.6	2.4
1904	3.0	2.3	1.3	2.5
1905	2.6	2.1	1.7	2.3
1906	2.4	2.0	1.9	2.2
1907	2.9	2.9	1.9	2.8
1908	2.7	2.5	1.7	2.5
1909	2.8	2.5	1.5	2.5
1910	3.0	2.5	1.6	2.6
1911	3.2	2.3	2.0	2.7
1912	3.3	2.2	1.8	2.6
1913	3.4	2.9	2.3	3.1
1914	2.7	2.5	2.2	2.8

Summary and Conclusions.

1.—Otter trawls do not destroy the spawn of the commercially important demersal fishes, all of which have pelagic or floating eggs.

2.—Otter trawls do not seriously disturb the bottom over which they are fished nor materially denude it of the organisms which directly and indirectly serve as food for commercial fishes.

3.—The investigations conducted by the Bureau of Fisheries indicated that during 1913 trawling interfered but little with line fishing and caused practically no damage to the trawl lines. From the nature of the two fisheries, however, it is believed both can not be extensively conducted on the same grounds without resultant accidental damage to or interference with the lines, especially in foggy weather.

4.—Otter trawls as compared with lines takes a much larger proportion of commercial fishes too small to market. From January to May 3 per cent of the cod and 11 per cent of the haddock, and from June to December 40 per cent of the cod and 38 per cent of the haddock were unmarketably small, while the lines caught practically no such fish. These proportions were fully maintained in the respective classes of vessels fishing at the same season on the same grounds. These young fish are practically all destroyed.

5.—Otter trawls as compared with trawl lines market a much larger proportion of small fish, and, therefore, they not only destroy more small fish not utilized, but are biologically more wasteful, by reason of the smaller size of the marketable fish. As, however, a large proportion of these smaller fish would undoubtedly die or be destroyed under natural conditions before reaching the large or medium size, the effects on the total supply of fish are less to a conceivable, but at

* Some estimates indicate that 50,000,000 pounds of bait, caught by boat and trap fishermen, are used in the line fisheries conducted by New England bank vessels.

x Excepting mackerel. Herring could not be excluded for lack of data.

present indeterminable, degree than the data presented would indicate.

6.—Practically the only food fish which the otter trawl has added to the present yield of the fisheries on the banks is the "sole," of which about 600,000 pounds were caught in 1913. This is equal to about three times the quantity of hake, 36 per cent of the cod, and 5 per cent of the haddock, or about 4 per cent of the three combined marketed by the trawlers. On the other hand, it is estimated that this is less than one-third of the weight of the immature cod, haddock, and hake destroyed by otter trawls. The trawlers have not added greatly to the food supply by the introduction of fishes not previously taken in quantities by the liners. They may have conferred some benefit on the consumers by catching and marketing larger quantities of the smaller and cheaper fishes of the cod family, provided, of course, that this does not induce the depletion of the ultimate supply. Both trawlers and liners catch considerable quantities of edible species for which they have failed to develop a market.

7.—There is but little evidence to show that the introduction of the otter trawl in the American fisheries has had any material effect in keeping down the price of fish. Since 1898 there has been a gradual, although fluctuating, increase in the price received by the fishermen for all kinds of fish. The haddock has increased proportionately less than the other demersal fishes and since 1908 has kept close to or below the level of that year, and this is probably, to no small extent, due to the large quantities of small and cheaper fish landed by the trawlers. The catch of the American trawlers, however, is too small in proportion to the total production of demersal fisheries to have a material effect on prices, and we have therefore examined the price statistics of England to determine what light they shed on the subject. We find that while, apparently, the otter trawl reduced the cost of production of fish for a number of years, after it become paramount in the fishery of that country, it did it to some extent by reducing the standards of size, and that recently there has been a rapid increase in the prices of fish which are now higher than ever. Undoubtedly the general increase in commodity prices has had some effect.

8.—We have been unable to discover from the examination of official records, extending from 1891 to 1914, any eidence whatever that the banks freuented by the American otter trawlers are being depleted of their fishes. Since 1905 when the first steam trawler began operations off the New England coast, there have been fluctuations in the total yield of the bank fisheries, but they have been no more violent nor significant than in the period before 1905, when lines alone were used. In fact, some of the heaviest yields recorded in the line fishery have been made in years since the otter trawl was introduced, and, while the catch of line fishermen in 1914 on Georges Bank, South Channel, and Nantucket Shoals, where the otter trawlers operate, was less than half of that in the extraordinary year 1905, this was accompanied by a proportionate reduction in the intensity of the fishery as measured by the number of trips to these grounds. The average catches per trip of haddock and of cod, haddock and hake combined have been considerably higher since 1910 than for any similar period of which we have record. The average catch of cod per trip to these banks has decreased since 1910, but it is higher than for any similar period prior to the introduction of otter trawling. As the liners catch, proportionately, more cod and the trawlers more haddock on these banks, and as quantitatively the liners catch more of each, the statistical facts of the fishery certainly do not indicate that it

TYPE OF VESSEL EMPLOYED IN LINE FISHING

has yet shown signs of depletion from the use of the otter trawl.

9.—We recognize that the conclusions arrived at in the preceding section are necessarily inconclusive for the reason that the otter-trawl fishery in American waters is to recently established and relatively too small to have had a very material effect on the fish supply of the banks frequented. We have therefore examined the accessible data relating to the fishery in England and Scotland, particularly that conducted in the North Sea, where it is most intensive and has been longest established. We have used the data without reference to the opinions others have expressed and have endeavored to arrive at independent conclusions without prejudice from previous investigations of the subject. While the statistical information, particularly that contained in the English reports, is more useful for the purpose than is that pertaining to our own fishery, it is in recent years only that it is given in sufficient detail. Proof respecting the depletion of the fisheries, on the contrary, can not be deduced. The most possible has been the establishment of more or less strong presumptions one way or the other.

10.—The cod, haddock, and plaice are the most important and abundant of the demersal fishes of the North Sea, and the three combined comprise about 75 per cent of the catch. English vessels take between 50 and 60 per cent. of the total of these species landed from th North Sea, and the English trawlers alone take from 45 to 50 per cent. These three fishes are, therefore, the only ones which it is important to consider.

The statistical data of the English fisheries indicate by a decrease in the total catch, in the average catch per unit of effort, and in the proportion of large fish to the total that probably the plaice fishery is being depleted. The first two criteria also point to a decrease in the haddock, and it is believed that the third test fails to do so only because a lowering in the standard of sizes makes the statistics in this particular misleading. The cod does not show indications of overfishing, probably because its different habits make it less vulnerable to the effects of the predominant fishery, steam trawling.

The statistics of Scotland are less satisfactory for our purpose than are those of England, and it is not possible to obtain sufficient separate data for the North Sea. We have therefore considered the fuller information obtainable in respect to the east coast, the fishery of which is prosecuted mainly in the North Sea. The same three species are discussed, the catch of these by Scotch vessels in the North Sea proper constituting about 25 per cent of the total yield of the three in that sea. The plaice show signs of depletion in the heavy decrease of the total yield and of the average catch per vesesl and in the proportion of large fish to the smaller sizes. While the haddock has increased in the total catch, the average catch per vessel has fluctuated to an extent which makes any deductions from the data uncertain; and there is a small decrease in the relative proportion of large fish compared with the total. The cod has increased in total catch and in the average catch per vessel, but relatively fewer larger fish were taken in later years.

Considering the English and Scotch fisheries in the North Sea together, there is a strong presumption of overfishing in the case of the plaice, considerable evidence of the same thing in respect to the haddock, and practically none concerning the cod. As the steam trawler is overwhelmingly predominant in the fisheries for these species. it must be held responsible for such overfishing as may have occurred.

11.—Three regions other than the North Sea support more or less important English trawl fisheries yielding essentially the same species which have been discussed. They are Iceland, the White Sea, and the Faroe Islands. Separate data concerning them are available for years subsequent to 1905, and while the period covered is too short to admit of deductions of much value, it has been employed for purposes of comparison with the North Sea.

In Iceland the total catch of both haddock and plaice and the average catch of each, especially the latter, showed heavy decreases, while the cod increased. In all species, but particularly the plaice, there was a decrease in the proportion of large sizes to the total.

In the White Sea the total catch of all species increased from 1906 to 1912, but this was in part due to an increase in fishery activity. As measured by the quantity caught per trip there was an enormous increase in cod, a heavy increase in haddock, and a heavy decrease in plaice. The proportion of large fish was approximately maintained in the cod and plaice but was much smaller in later years in the case of the haddock, thus indicating that the increase in the catch of that species was due to the saving of smaller fishes previously discarded or unsought.

In the Faroes there was a slight increase in the average catch of cod per trip, owing mainly to an increase in the smaller sizes, and a decrease in the haddock, accompanied by a similar increase in the take of smaller fish. The catch of plaice was negligible in all years.

The data from these regions are therefore in general confirmation of those relating to the North Sea, namely, that there is a presumptive decrease in the plaice, a probable smaller decrease in the haddock, and little or no change in the numbers of cod.

12.—The North Sea embraces an area of about 152,000 square miles, which is not equally productive and part of which is resorted to not at all or very little by English and Scotch trawleras. Georges Bank, South Channel, and Nantucket Shoals cover about 9,800 sq. miles, a considerable but indeterminate part of which is not resorted to by fishermen and presumably not by fishes in large numbers.

In 1913 English and Scotch (Aberdeen) otter trawlers only made 50,590 fishery trips to the North Sea. Assuming the entire area of the sea to have been fished, there was one trip to each 3 square miles. In the same year 326 trips to Georges Bank, South Channel, and Nantucket Shoals were made by American otter trawlers, which therefore had 30 square miles of bottom to each trip.

This unsatisfactory comparison is the best that we can give of the relative intensity of the otter-trawl fishery in the North Sea and on the banks frequented by the American trawlers. In the estimate respecting the North Sea some unproductive bottom is included and the trawlers of other nationality than the British are omitted, and the estimate of 3 square miles is too high. In the case of the American banks a considerable unproductive area is also included, and while all trawlers are taken in to account the estimate of 30 square miles is also too high, but in neither case can we estimate the error. The most specific information concerns the Dogger Bank, having an area of 6,216 square miles, to which English trawlers made 2,196 trips in 1913, or approximately a trip to each 3 square miles.

RECOMMENDATIONS.

While the facts before us show no proof or presumption of any depletion of the fisheries on the banks frequented by American otter trawlers, it is possible that the seeds of damage already have been sown and that their fruits may appear in the future or that the development of a wholly unregulated fishery eventually may result in injury where none now exists. The matter presented for our consideration is the safeguarding of the food supply not only of the existing but of coming generations, and we are therefore less concerned with present conditions than with those which may develop, less with the immediate intereasts of the parties to the controversy respecting otter trawling than with the ultimate interests of the entire country in the perapetuation of some sort of productive fishery for all time.

We have in the history of our own bank fisheries sufficient information to warrant the belief that there is but little danger of their depletion by line fishing as at present conducted, but there is no such accumulation of data respecting the recently introduced otter trawl; and for an indication of what may be expected from it we must have recourse to the history of the fishery in other places. Otter trawling has been practiced longest and has attained its greatest development in the North Sea, where there appears to be ample evidence that it is being carried on to excess and that the fisheries for certain fishes have suffered in consequence. The problem before us, therefore, is to suggest measures for the prevention of the development of similar conditions in the American fisheries.

The injurious effects of the otter-trawl fishery in the North Sea are believed to be in part due to the destruction of large numbers of small fish, and it has been proposed by certain European authorities to reduce its destructiveness by increasing the size of the meshes of the net to dimensions which will permit the escape of fishes too small to market. We do not regard this as an effective or feasible proposal for the reasons (1) that the meshes tend to close as the drag on the net increases with its burden, (2) that the accumulation of fishes in the cod end closes the avenues of escape there, and (3) that the fishes in any event would not attempt to pass through in large numbers until the net is being hauled in, when the possibility of escape would be reduced to a minimum. An increase in the size of the mesh in the cod end of the net would probably result in an increase in the number of fish gilled, thus not only inducing little mitigation of the destruction of young fishes but entailing additional labor in fishing the apparatus.

There remain three other methods of regulation:—The absolute prohibition of the use of the otter trawl or similar apparatus; the restriction of the number of nets or vessels which may be employed; and the restriction of the area on which the apparatus may be used.

The first and most drastic measure would of course be most effective, but in view of the fact that it appears to be the excessive use of the otter trawl which has caused injury to the North Sea we do not regard it as justifiable to prohibit its use on the American banks where it is not yet shown to be injurious. In other words, our present information indicates that it is not fishing with the otter trawl but over-fishing which is to be guarded against. The fact that it is undoubtedly more destructive than line fishing is not sufficient for its condemnation, for the same objection can be raised with more or less validity to almost any other net fishery, and we do not know to what extent the destruction of young fishes in the open seas in reality injures the fisheries.

The regulation or restriction of the number of vessels or trawls permissible in the fishery we regard as objectionable for the reason that it would establish an actual or virtual monopoly. The regulation could be made effective only by the issuance of a limited number of licenses or permits, and this would involve either some selection or discrimination among the applicants by the issuing authority or an undiscriminating issuance of permits to the earlier applicants and their refusal to those making application after the predetermined number had been granted.

The restriction of the use of the trawl to certain definite banks and grounds appears the most reasonable, just, and feasible method of regulation which has presented itself to us.

It would have the effect of automatically placing some limitation on the number of vessels engaged in the fishery, for the reason that caution would be imposed on prospective investors by virtue of their knowledge that no other fishing grounds were open to exploitation if those allotted to them should be exhausted.

It would cause the trawlers, for reasons of self-interest, to exercise care to reduce as far as possible such abuses or economic defects as may be inherent in the method and to eliminate those which are not essential to it. The results of offenses against good fishery practices would be imposed directly on the prime offenders and would be mitigated to those using other methods by their freedom of resort to other areas where the evils would be manifested little or not at all.

Any injury to the fishery which might result from the development of otter trawling under such restriction would be localized. It would manifest itself chiefly on the banks to which the fishery might be restricted and, especially in respect to the haddock, the fish likely to be more severely affected, would extend but little or not at all to the banks from which the otter trawl might be excluded. Therefore neither the whole, nor even the major part of our bank fisheries, could be depleted by any conceivable development of otter trawling under such restraint.

Being thus localized, inherent evils would more certainly manifest themselves, the effects could be more closely observed and more quicly and surely detected, the fishery could be kept under closer and more accurate observation, and it would be possible by comparison with the conditions on the proscribed banks to discriminate in some measure between accidental fluctuations in the abundance of the fishes and those which might be due to overfishing.

We therefore recommend that the taking of fishes, excepting shell-fishes, by means of the otter trawl or beam trawl, or any adaptation or modification of either, or by any other apparatus drawn over the bottom by a vessel in motion, be prohibited, on all bottoms in the Atlantic Ocean, outside of territorial jurisdiction, north of the fortieth degree of north latitude, excepting Georges Bank, South Channel, and Nantucket Shoals east of the meridian of Sankaty Head on the island of Nantucket.

This will retain to the otter trawlers sufficient ground on which to prosecute their calling, it will not exclude the liners therefrom, and it will reserve to the latter exclusively the banks to which they make over two-thirds of their trips. It gives a large measure of absolute proportion to the important line fisheries of New England, and at the same time will permit the development of an otter-trawl fishery for flounders

and other bottom fishes from New Jersey southward on bottoms where they are not, and probably can not be, taken in large quantities by any other means. The flounder fishery of Massachusetts being conducted in territorial waters will not be interfered with. The regulation can be readliy enforced. because the open areas are well known, well defined, and can be kept under surveillance. Moreover, every line fisherman in the area affecetd will be a self-constituted fish warden, prompted by every motive of self-interest to bring infractions of the regulation to the attention of the proper authorities.

It must be understood that this recommendation is based on what we believe to be the conditions at this time. Next year or 10 or 20 years hence they may be different, and it will be necessary to closely observe the developments of the future to the end that a situation shall not arise such as has arisen in the North Sea, which will be recognized as requiring correction, but which will present such far-reaching and important economic aspects as to make rectification difficult or impossible.

In conclusion, we emphatically state it to be our opinion that this regulation will prove futile and an unnecessary imposition on American fishermen unless Canada, particularly, and, possibly, Newfoundland and France, will take such action as will prevent or restrict the use of the trawl on the banks in the western North Atlantic.

FISH TRADE INQUIRIES.

1.—A reliable Canadian firm is establishing an agency in Sweden and wishes to get in touch with Canadian packers of lobsters and salmon. This agency will endeavor to supply the Scandinavian and Russian market with these Canadian commodities. Address, "Sweden," care Canadian Fisherman, 45 St. Alexander Street, Montreal, Que.

2.—A New York firm wishes to get in touch with Canadian sturgeon fishermen. Also shippers of ciscoes and bluefins. Address "Sturgeon," care Canadian Fisherman, 45 St. Alexander Street, Montreal, Que.

NEW INTERCOLONIAL RAILWAY BOOKS.

The Publicity Department of the Intercolonial Railway have just issued a series of booklets dealing with the scenic beauties of the Maritime Provinces which for artistic merit in illustrations and design, and interest of reading matter, would be hard to beat. The publications are entitled "Abegweit," "Bras d'Or Lakes," "La Baie de Chaleur," and all of them are worth procuring.

The colored plates and cover designs are beautiful examples of Canadian color printing and the whole get-up of the booklets are among the finest samples of railroad advertising we have seen.

The subject matter of the booklets is well written, and portrays in an interesting manner the holiday fascinations of the particular localities they deal with. Those who are acquainted with the various beauty spots reached by the Intercolonial will have no hesitation in saying that the literature is in keeping with the places they advertise.

FIRST MACKEREL OF SEASON.

The first mackerel to be taken in Nova Scotia this season was stopped at the Calf Island Weir on Friday, May 14. It was but one fish, but a large one.

CORRESPONDENCE.

Editor, Canadian Fisherman:

Sir,—I observe in your April number a statement to the effect that Mayor Curley of Boston has entered the field as the champion of the New England fishermen, in an effort for the removal of the embargo on American fishing vessels in Canadian ports—meaning a revision of the modus vivendi agreement—so as to let auxiliary craft participate in its privileges. It is further said that Mayor Curley first undertook this task when he was a member of Congress.

This flattering reference to Mayor Curley is the most bare-faced thing imaginable. Kindly permit me to make it decent.

That gentleman, active enough in politics and generally keen, apparently never heard of the said embargo till I told him of it last winter. I put down the salient points on a paper, which I handed to the Mayor as the basis of a note to Secretary of State Bryan. All he had to do was to forward the brief and bespeak attention for it. Here is his acknowledgement:

City of Boston,
Office of Mayor, Feb. 25, 1915.

"Mr. M. H. NICKERSON,

"Mr dear Sir,—In harmony with your respect, I have taken up the question of the Canadian embargo of American vessels with Secretary of State Bryan, and have apprised him of all the facts set forth in your communication.

"JAMES M. CURLEY,
"Mayor of Boston."

I don't know who perverted the facts in this case, and I don't greatly care. Indeed, it was rather funny to see a like paragraph, long before it reached your office running through all the Nova Scotia papers, in spite of my repeated attempts at correction. I hope it will not be necessary to chase the fiction any further. We are likely to get the said reform through, and that is the main thing.

M. H. NICKERSON.

SHIP FISH BY MAIL.

Seventy-two thousand pounds of frozen fish were shipped to farmers through parcel post by Cleveland dealers during February, according to Postmaster Murphy. Before the establishment of the parcel post, farmers had to content themselves largely with pickled and smoked fish.

ARTIFICIAL FISH-DRYING.

The "Fish Trades Journal" of March 20 states:—"The invention of a system for revolutionizing the fish-drying industry, and recently put into operation by two young Grimsby merchants has now been successfully launched on a commercial basis after long and very exhaustive experiments and tests. The system applied to drying the salted cod and other round fish for the home and foreign markets makes the company independent of the elements—sun and wind—by which all other fish-drying firms at Grimsby carry out their operations, and while the most severe tests have proved the fish to be in no sense inferior to that dried by wind and sun, it possesses many advantages over that which is placed in the open air for treatment. For instance, it is guaranteed absolutely free from coke dust and sulphurous fumes; it possesses the clear white appearance which all curers aim at but only partially secure; while, being independent of the weather, curing is made an all-the-year-round business.

Wholesale Fish Prices, Montreal Markets

Fresh Fish trade is active at the moment. Two weeks of abstinence and cool weather has stimulated demand and a good harvest has been gathered as a result.

Moreover the high price of meat has also been a factor towards the increased sales of fish. People start to realize that fish is the natural substitute for meat, and when this idea will have penetrated to every corner of the consuming classes, the fish business will increase by bounds and leaps.

Pickled and salt fish very quiet and nearly every lines has dropped in prices.

Lakefish is very plentiful and in good demand. Dore has again reappeared and is a favorite as usual.

Fresh salmon has been scarce, and will be so until middle of the month, when good shipments of Gaspe fish are expected.

Oysters, Lobsters, scallops, etc. are rather quiet without any change in prices.

Smoked Fish.

Haddies, 15 lb. boxes, new	per lb.	$ .07½
Haddies, 30 lb. boxes	per lb.	.07½
Haddies, Fillets	per lb.	.10
Haddies, boneless, 15 and 30 lb. boxes		**.08½**
Yar. Bloaters, 60 in box, Selected		1.25
St. John's Bloaters, 100 in a box		**1.00**
Kippered Herrings—Selected		1.40
Kippered Herrings—Other brands		1.25
Smoked Herrings—large size, per box		**.18**
Smoked Herrings—medium, per box		**.20**
Smoked Boneless Herrings, 10 lb. box		1.20
Ciscoe Herrings, a basket 15 lbs		**1.50**
Smoked Eels		.12

Fresh Fish.

Halibut	**per lb.**	**.11**	**.12**
Haddock	**per lb.**	**.05½**	**.06**
Market Codfish	**per lb.**	**.04½**	**.05**
Steak Codfish	per lb.	.06	.06½
Carp	per lb.		.06
Perch	per lb.		.05
Lobsters, live	per lb.		.18
Lobsters, boiled	per lb.		.20
Dore	per lb.		.12
Pike	per lb.		.07
Perch	per lb.		.05
Gaspereaux	each		.02
Eastern Salmon	per lb.		.30
Western Salmon	per lb.		.20
Shad Roe	each		.45
Shad Buck	each		.25
Lake Trout	per lb.		.11
Whitefish	per lb.		.12
Blue Fish	per lb.	.10	.11
Dressed Bullheads	per lb.	.10	.12
Lake Trout	per lb.	.10	.11
Brook Trout	per lb.	.24	.25
Eels	per lb.	.10	.11

Frozen Fish.

Salmon—Gaspe, large	per lb.	.12	.13
Salmon—Red, Steel Heads	per lb.	.11	.12
Salmon—Red, Sockeyes	per lb.	.10	.11
Salmon—Red, Cohoes or Silvers, per lb.		.08	.08½
Halibut large and medium	per lb.	.09	.10
Salmon Pale Qualla, dressed	per lb.	.07	.07½
Halibut large and medium	per lb.	.08	.08½
Mackerel, Bloater	per lb.	.07½	.08
Herrings, medium, 50 lb. per 100 count			3.00
Haddock, medium and large	per lb.	.04	.04¼
Market Codfish	per lb.	.03½	.04
Pollock	per lb.	.03	.03½
Tommy Cods	per lb.		
Smelts, extras 10, 20, 25	per lb.		
Smelts, medium to large	per lb.		.10
Smelts, small	per lb.		.06
Canadian Soles	per lb.		.07
Blue fish	per lb.	.15	.16
Striped Sea Bass, large	per lb.	.14	.15
Sea Trout	per lb.	.10	.10½
White fish, large	per lb.	.08½	.09
White fish, small Tulibees	per lb.	.06	.06½
Lake Trout, large and medium	per lb.	.08½	.09
Dore, dressed or round	per lb.	.07	.07½
Eels	per lb.		.09
Pike, round	per lb.	.05½	.06
Eels	per lb.		.10
Shad, 3 lbs. each			.08
Frogs, 10 lbs. tins			.20

Pickled Fish.

Salmon, Labrador, Tierces, 300 lb.	29.00
Salmon, Labrador, Brls., 200 lb.	13.50
Salmon, B.C., brls.	12.50
Sea Trout, brls.	**12.00**
Sea Trout, half brls., halves	**6.50**
Mackerel, N.S., Brls. 200 lb.	12.00
Mackerel, N.S.,Hf. Brls. 100 lb.	6.50
Mackerel, N.S., Pails, 20 lb.	**1.50**
Herrings, Labrador, Brls.	6.00
Herrings, Nova Scotia, Brls.	6.00
Herrings, Nova Scotia, Half Brls.	3.50
Lake Trout, Half Brls.	**6.00**
Quebec Sardines, Brls.	6.00
Turbot, brls.	**14.00**
Herrings, imported, Hf. Brls.	8.00
Herrings, imported, kegs, each	1.00

Salt Dried & Prepared Fish.

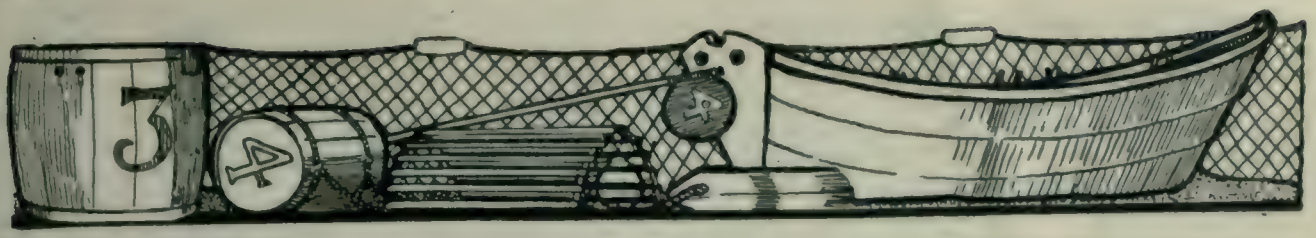
No. 1 Green Cod, large, per barrel	8.00
No. 1 Green Cod, medium, Brl.	7.00
No. 1 Green Cod, small, Brl.	6.00
No. 1 Green Cod, Haddock, medium, Brl.	6.00
No. 1 Green Cod, Pollock, medium, Brl.	6.00
No. 1 Green Cod, Hake, medium, Brl.	6.00
Quebec Eels, large, per lb.	.07
Dried Codfish, med. & small 100 lb. bundle	**7.00**
Dried Hake, medium & large 100 lb. bundles	6.00
Dried Pollock, medium & large 100 lb. bund.	**6.00**
Dressed or skinless codfish, 100 lbs. case	7.00
Boneless Codfish, 2 lb. blocks, 20 lb. boxes	**.08**
Boneless Codfish, strips 30 lb. boxes	**.11**
Shredded Codfish, 12 lb. boxes, 24 cartons, ½ lb. each, a box	1.75

Bulk Oysters, Clams, Etc.

Best Standards, imp. gallon	1.50
Solid meats, imp. gallon	1.80
Best clams, imp. gallon	**1.50**
Best Scollops, imp. gallon	1.75
Best prawns, imp. gallon	**2.00**
Best Shrimps, imp. gallon	**2.25**
Sealed best standards, quart cans, each	.35
Sealed best selects, quart cans, each	.45

Oysters, Clams, Mussels and Shell Fish, Crustaceans,

Best Scollops, imp. gallon	2.00
Cape Cod shell oysters, per barrel	11.00
Malpeque shell oysters, selected, C.C.I., brl.	9.00
Malpeque shell oysters, selected, J.A.P., brl.	8.00
Clams, per barrel	6.00
Mussels, per barrel	**5.00**
Winkles, per bus.	3.00



THE ATLANTIC FISHERIES

DIGBY, N.S.

(Special Correspondence.)

During the past month the shore fishing has been gradually improving; but most of the fishermen still insist that fish are not as plentiful as they have been in previous years. The run of halibut along the shore is about over, while the haddock are striking in small quantities along with pollock and cod which seem to be fairly plentiful. Hake have been reported coming up the Bay and some good catches were secured by a few of the Tiverton and Westport boats.

During the past month the shackers have landed here as follows:—Schooner Dorothy G. Snow, 100,162 lbs.; Lilia Boutilier, 124,802 lbs.; Grace Darling, 85,648 lbs.; Cora Gertie, 23,597 lbs.

PRINCE EDWARD ISLAND.

(Special Correspondence).

Although the lobster season was legally open this year on April 26th, for all the waters around the Island excepting the section of Northumberland Strait extending from West Cape to Cape Traverse, it was not until three weeks later, that fishing became general. This delay was owing to the ice remaining around the coast longer than was known for many seasons. Some of the factories in the vicinity of Malpeque Bay began work around the tenth of May. Their pack was well up to the average of last year, both as to size and numbers. The more unfortunate fishermen along other sections of the north side, and along the south and east, had to wait patiently until the ice jam moved off before they dared run their lines. The straits were blocked even so late as the 8th of the month that the winter steamers were still plying between Charlottetown and Pictou, and one day they were over seven hours making the fifty mile trip. The catch of herring which the lobster fishermen have mainly to depend upon bait, has up to the time of writing been below that of last year, but a larger supply is expected later, when all the ice has moved off. Several steamers bound down the straits from New Brunswick got caught, and one of the Island ice breakers had to go to their assistance. Some of the ice encountered so late this season was unusually heavy, and in places in the form of bergs which grounded on the flats. Owing to the delay in starting operations, and also to the fact that the season was shortened by the Government five days this year, there is a demand from every quarter for an extension. Although under ordinary circumstances the fishermen as a whole do not ask for an extension, it is generally conceded that the Government would be justified in granting one this year. The drop in price, too, is another argument in favor of the extension.

There are two hatcheries at present in operation on the Island, one at Georgetown, the other at Charlottetown. When the Dominion Royal Commission was here last August, evidence was taken as to the results of this artificial propagation. It was stated by witnesses that it was difficult to guage these results, as the opinion deposited in certain localities floats round to other parts. It was also contended that any lengthening of the present legal season (unless for some extraordinary delay in opening to unfavorable conditions) would deplete the supply. Stricter enforcement of the regulations so as to prevent illegal fishing was emphasized. One witness advocated a fisheries police, organized somewhat along the same lines as the North-West Mounted Police, who would move from point to point along the coast.

The question of using some land locked bay as a natural spawning ground, instead of depositing the lobster fry out at sea was also touched on. Whatever might have been discussed before the Commission, it is evident that the industry will be conducted along about the same lines as last year. Charlottetown has had lobsters in the shell for sale in the city market, and by several restaurant keepers for about a week. The retail price opened at 15 cents per lb.

With the exception of herring. lobsters are the only fish taken in our coastal waters, so far this season.

The bait season opened on April 1st, fishing being mainly confined to the rivers. Cold, wet weather has interfered considerably with angling.

NEW BRUNSWICK'S FISHERIES.

The total value of the fish wealth of Canada last year amounted to $33,207,748, of which $4,308,707, came from New Brunswick. The value of the catch in St. John and Charlotte Counties was $1,539,629, a decrease of $72,970, over the previous year. There was a great falling off in sardines, the take in 1914 being 141,384 barrels, against 280,282 the previous season. The herring catch was 197,297 cwt. against 189,200 cwts. previous year. Decreases took place in lobsters and hake. For the rest of the Province, the catch of sea fish was valued at $2,694,640, an increase of $83,-307. The inland fisheries of New Brunswick yielded $41,948, against $40,132 the last season.

YARMOUTH, N. S.

(Special Correspondence)

The month of May, so far, has been a busy one in fishing circles. There has been considerable activity in all branches. The catch of lobsters has been exceptionally large and several almost record shipments have been made to the Boston market. Good weather has favored the fishermen and there has been very little time lost during the last few weeks. Through the efforts of J. F. Masters and other officials of the Boston and Yarmouth Steamship Company, too, permission has been obtained and arrangements made for the

discharge of live lobsters and fresh fish upon the arrival of the Yarmouth steamer at Boston on Sundays. This both equalizes the shipments and keeps the prices on a better level. Formerly this perishable freight had to remain in the steamer over Sunday and when it was discharged on Monday it had deteriorated considerably, the loss in lobsters being particularly heavy. The fishermen knew this and arranged the bulk of their stock on Thursday and causing the market to go up and down like a see-saw. So the new arrangement came into effect the shipments on Wednesday have fallen off a little while the Saturday shipments have correspondingly increased.

Heavy as have the shipments of lobsters by steamer been this year they do not, by any means, represent the total catch. American well smacks in large numbers are in these waters carrying live lobsters to Boston and Maine in tens of thousands. The first trip to arrive at Portland reached there about April 20, in the Chester A. Kennedy. She had 5,700 secured at Sandford and Abbott's Harbor, for the F. S. Willard Company. This company must be calculating on large numbers from these waters as they have had built six immense cars will be used in storing the crustaceans as they arrive from the provinces. A few days later three more of the smacks arrived at Boston in one day followed by two more the day following the five landing a total of 53,000. Another smack, the Little Ruth, with 11,000 lobsters from Woods Harbor to Boston, went ashore on Seal Island on the 15th, but was floated next day, very little damaged and proceeded to her destination.

The lobster season closes at the end of this month and in the next Yarmouth letter a comparative statement of the shipments this year and last will be given. In the meantime the following table to the end of April may be of interest:

	Crates	Value
December, 1914.	1,692	$ 35,143
January, 1915.	3,674	$109,415
February, 1915.	2,486	$ 79,925
March, 1915.	3,729	$ 86,165
April, 1915.	7,837	$123,138
	19,418	$433,786

Another feature of the May fishing is the opening of the mackeral season. It was a few days earlier this season than last the first fish being taken on the 10th by the Calf Island weir. This is unusual as the first fish is usually taken just off the main land a little to the west of Yarmouth but this year the traps, owing to a little blowy weather, did not have the twine on until after that. At the first pursing of the Cranberry Head trap on the 15th one large fish was taken and possibly if they had been ready earlier fish would have been caught as the prevailing winds have been in their favor this spring. As soon as the traps were ready a school of pollock was on the coast and mackerel and pollock do not go well together. In consequence the traps, although pursing every day, took but a few mackerel. The Cranberry Head trap, though, took twelve tons of pollock in a week. On the 22nd pollock fell off and the traps made the first decent stop of mackerel, Cranberry Head taking eleven barrels, Sandfordten. A few also have been taken at Green Island and at Calf Island. No doubt they will be striking in soon.

There have been a few casualties this month two men losing their lives and several others having narrow escapes. The two who were drowned were not fishermen although they were drowned while off fishing. They were Aubrey Muise and William Smith, two of the employes of the cotton mill, who went off on a fishing trip in a dory on Sunday, the 16th. They left about 5 o'clock in the morning and were seen in the after-

Lunenburg Harbor, N.S., showing some of the Fishing Fleet at Anchor.

noon a short listance west of Chebogue Point. They did not get home, however, and the next day the dory was picked up bottom up. Eactly what happened will never be known. Moses G. Smith, one of the Seal Island fishermen was badly hurt when he became entangled in a gasoline engine used at the Island for hauling boats up on the beach. He was hurled around several times during which a shoulder was broken, his head cut open and he was generally broken up but is recovering. Again two of the Bar fishermen—Raymond and Lincoln Abbott — got into the breakers through their engine stopping. The McGray brothers went to their assistance and got them out just in time. Two well-known Micmac guides—two of the most successful guides to the inland fisheries in the province, have also passed away. One of them, Abram Toney, was found dead on the road a few miles from Yarmouth having evidently died of heart trouble; the other, William Carty, disappeared from his home on the shores of the Great Pubnico Lake three months ago while on an expedition attending to his traps. His body was found floating in the lake a few days ago.

In Shelburne County, too, two young men in Clark's Harbor, lobster fishermen, were drowned by the upsetting of their boat.

The board of trade took an important step this month when they endorsed the action of the Halifax board of trade in asking that motor driven fishing vessels registered in the United States be allowed the same privileges as sailing vessels under the Modus Vivendi. This privilege, it was pointed out, had been allowed to American vessels on the British Columbia coast and it was felt that the same privileges should be extended to the vessels on the Atlantic coast.

In my last letter there was a paragraph referring to a marine curiosity which was on exhibition and which was arousing much interest. Mr. E. Chesley Allen, principle of the South End School, who is a nature student of considerable ability has made an examination of this curiosity and he has made the following report:

"The marine curiosity exhibited last week in L. C. Gardner's window was, in fact, a small managerie, representing at least three different forms of animal life. It consisted, however, of a cluster or colony of barnacles, differing from the common small white barnacles of our shore by their larger size and by the possession of stalks for attaching themselves to rocks, timbers or ships' bottoms.

"These larger barnacles are commonly called "Ship-barnacles," or "goose-barnacles," from the fancied resemblance that the shells bear to eggs, and the still stranger notion found in the old natural histories that young geese actually developed from them.

"The complicated shell which surrounds each individual can be opened or closed at will, and when opened the fan-like feet of the creature within are protruded and by their waving motion keep a current of water setting into the mouth, carrying with it any small animals that may serve the barnacles for food.

"Covering part of the surface of this particular group of barnacles was a species of sponge. This was not necessary to the colony, but was growing upon them, as it might upon any other marine object.

"Again, down in a crevice of the colony were two other creatures known as actiniats, "Sea-anemones," pale rosecolored, and having dozens of arms or tentacles outstretched awaiting any tempting bit that came their way, when the arms would close over it and draw it into the mouth."

The exports for the month have been as follows: live lobsters 7,329 crates, fresh halibult 177 cases; mackerel 2 barrels, salmon 104 cases, periwinkles 9 barrels, ells 6 barrels, boneless fish 2,215 boxes, salt herring 23 barrels, fish clipping 6 barrels, pickled cod 13 cases, pickled fish 138 cases, canned lobster 470 cases, fish waste 222 barrels, boneless cod 926 boxes, finnen haddies 30 boxes, fish scraps 17 barrels, fish skins 5 barrels, salt cod 826 drums, fresh shad 1 barrel, fresh cod 1 case, scallops 19 half-barrels, fresh fish 74 cases, smelts 19 boxes, clams 14 barrels. To Porto Rico, 100 tierces and 157 drums dry salt cod; to Havana 275 drums do.; to England 2,959 cases canned lobster; to France 15 cases do.; to Denmark, 100 cases do.

UNMARKETABLE FISH AS FOOD.

In consequence of the partial closing of the North Sea to fishermen, says The Fishing News, we are confronted with the prospect of a fish famine in the near future. The far-reaching effects of such a famine are as difficult to forsee as they are disquieting to contemplate. Certainly a rich harvest of fish is obtained from other British fishing grounds, but none of them compare in productivity with the North Sea banks.

In any case the price of fish is likely to increase greatly. Already it is well-nigh prohibitive to a large section of the community among whom it forms a staple article of diet. It may be opportune therefore to deal with some of the more neglected sources of food supplies off our coasts, as these may perforce have to be utilised soon.

Dogfish Quite Palatable.

"It is not generally appreciated (writes "Zoologist" in "The Milford Gazette") that the flesh of the two common species of Dogfish (Scyllium canicula and catulus) is useful as food, with the possible exception of the liver. Among fishermen it is frequently esteemed above all other fish, and in parts of Devonshire and Cornwall it is in some demand for the making of soup. In France and elsewhere there is much less prejudice against the use of dogfish as food.

Many of the nearly related Rays and Skates also form nutritious and even palatable fare, and more use might be made of their flesh than heretofore. It is quite a mistaken idea to reject all but the smaller individuals, because the moderately-sized fish are usually less tough than these. Rays should not be eaten when too fresh. Among the edible species we may enumerate Raja batis, the "True Skate," the White Skate (also known as the May or Burnton Skate), Fuller's Ray, the Thornback, the Spotted Ray, the Cuckoo or Sandy Ray, and sometimes the Whip or Eagle Ray. Some of these species are in great demand by the French and others, who purchase quantities of English-caught fish for the Continental markets.

The Rockings (Motella mustela and M. tricerrata), are smallish-shore-haunting fishes, distinguished by the possession of more or fewer barbules around the mouth. They are found in some abundance near rocky coasts. Rocklings were formerly in great demand for the tables of the wealthy, and when fresh they are reputed to be of exceedingly delicate flavor.

Wolf Fish a Delicious Food.

Some of the Blenniaae are of economic value. The large and ferocious Wolf-fish of our northern waters, which sometimes attains a length of 6 feet, is known to be a delicious food. Owing to the repulsive appearance of the fish, however, its flesh is very generally rejected. The Gattoruginous Blenny has sometimes been prepared for human consumption.

The Greater Weaver (Trachinus draco) is considered a dainty by those who have partaken of its flesh. This fish needs very careful handling on account of its venomous fin-ray.

Some of the Wrasses (rock fishes) attain a considerable size, and when properly prepared their flesh forms a very appetising food.

There is also much wholesome food material to be gathered between tide-marks with a minimum of labor. There limpets and winkles are to be found in abundance. The periwinkle (littorina littoret) is, in fact, always in great demand among the poorer classes. It is suggested that the cockle and mussel industry of our shores might be controlled more efficiently and the distribution of these edible molluscs effected with greater economy.

Edible Crabs.

Several of the commoner crabs are edible, but owing to mere unreasoned prejudice these are not utilised to any great extent. Such are the spider crab, the green or shore crab, and the fierce, hairy, red-eyed velvet fiddler. The last-named species is the subject of special legislation in Guernsey, where it finds a ready market. The shore crab is consumed in large quantities by the thrifty Breton fishermen.

Gosee records having eaten cooked sea-anemones (Actinia) such as are found on every coast. His heroic example is not likely to be followed by the many.

Among our native seaweeds are included many edible species. When prepared correctly they form palatable and nutritious foods. The most frequently consumed are the purple and green lavers. The Caragheen moss is made into a jelly in some localities.

The advent of the tripper to many of the West Coast towns and villages has led to the neglect, total or partial of the inshore fisheries. A very considerable amount of fresh fish might be obtained from such sources. This summer may witness a partial return of the fishermen to their old occupation, which should prove more lucrative than heretofore.

FISHERIES STATISTICS FOR MARCH, 1915.

The month of March was generally bright but very windy on the Atlantic coast, and as a consequence fishing operations, where these were being carried on, were considerably interrupted. There was little or no fishing to the eastward of Halifax, except at the Port of Canso where the unusual sight was witnessed of quite large landings of haddock being made. During the months of February and March these landings, with the exception of a few hundredweights which were taken by line-boats, were made by a steam trawler which continued working all through the winter months.

A heavy gale during the last days of the month destroyed much lobster gear and damaged several fishing boats on those parts of the coast where lobster fishing is proceeding.

It is reported from Digby County that, owing to continued windy weather during the month, the landings of vessels fell short of those for the same month last year; while on the other hand the total landings of lobsters during March this year shows an increase of 1,087 cwts. over that for March in the year before. Fishermen report a greater proportion of large lobsters in the catches this year.

Since the opening of the present lobster season on the 15th of November last till the end of the month of March, there were 7,824 cases packed, while the total shipment in shell was 30,206 cwts. During the corresponding period in the preceding year there were 10,532 cases packed and 24,305 cwts. shipped in shell.

The weather in British Columbia during March was warm and favorable for the prosecution of the fisheries. It is worthy of note that the catch of herring landed it, British Columbia during the month under review was 58,000 cwts. greater than that landed during March in the preceding year.

One fisherman was lost from a Lunenburg vessel on the Atlantic banks, while two Halifax fishermen were drowned in the Prince Rubert District of British Columbia during the month.

The catches in the following counties being confined to a few kinds, they have not been given in the usual tabular form:—

Nova Scotia.

Victoria County:—Cod, 1 cwt. landed, value $3. Smelts, 1 cwt. landed, value $3. All used fresh. Value of all fish landed, $6.

Inverness County:—Cod, 1,500 cwts. landed, value $2,250; used fresh, 500 cwts., smoked, 500 cwts. Haddock 6,000 cwts. landed, value $9,000; used fresh, 1,500 cwts.; smoked, 2,250 cwts. (These were caught during November, December, and January). Smelts, 250 cwts. landed, value $1,250; used fresh. Value of all fish landed, $12,500.

Cumberland County:—Smelts, 11 cwts. landed, value, $80; used fresh.

New Brunswick.

St. John County:—Lobsters, 69 cwts. landed, value $964; shipped in shell. Cod, 90 cwts. landed, value $185; used fresh. Alewives, 725 cwts. landed, value $1,700; used fresh. Value of all fish landed, $2,849.

Kent County:—Oysters, 400 brls. landed, value $1,600; used fresh.

Prince Edward Island.

Kings County:—Smelts, 110 cwts. landed, value $550; used fresh. (Caught in February).

No catch has been reported for Cape Breton, Colchester, Pictou, Antigonish, Hants and Kings Counties, N. S.; Albert, Westmorland, Northumberland, Gloucester and Restigouche Counties, N.B.; nor for the Provinces of Quebec and Prince Edward Island.

TRAWLER'S EXTRAORDINRY FATE.

A German floating mine has wrecked the Grimsby steam trawler Uxbridge and injured three members of the crew. The Uxbridge was fishing in the North Sea on Monday afternon, and the net was being hauled in when it was discovered that a mine had become entangled in it. As the net reached the ship's side the mine burst, with disastrous effect, the wheelhouse and bridge, being wrecked and the trawler's hull stove in. The chief engineer, who was on duty below, had his legs badly injured, but managed to crawl to the deck. All nine hands suffered from shock, but they succeeded in launching their small boat and getting clear of the Uxbridge, which sank ten minutes after the explosion. The Uxbridge was a steel built vessel of 50 tons register, owned by the Consolidated Steam Fishing Company, Ltd., Grimsby.—Fishing News.

THE PACIFIC FISHERIES

(Special Correspondence.)

General Notes.

Trade has been somewhat quieter than usual throughout British Columbia, mainly owing to short supplies on one hand, and on the other smaller markets available.

A recent visit to Seattle, Wash., seems to give one the impression that the much feared and talked about competition from Prince Rupert will not have to be taken into consideration for some time. The fact that American fish has to be shipped in bond from Canada into the U.S.A. and re-shipped back into Canada and duty paid thereon, means that the long rail haul from Prince Rupert to the border and back will not allow much of the American caught fish to be consumed in Canada. American buyers naturally do not encourage the arrival of American boats by sending buyers to Prince Rupert, for they have too much capital tied up in plants in Seattle. It therefore stands to reason that boats will not go to the northern British Columbia port unless buyers are at hand.

I am informed that this past week two Seattle independent boats made the experiment of going to Prince Rupert, but that they found considerable difficulty in getting buyers. When they did get clear of their catch, I am told that they proceeded immediately to the nearest Alaskan port of Ketchikan, and there bought their ice and supplies. Let us hope that this is not a criterion, for this will not benefit Prince Rupert or Canada much. Still we cannot blame Seattle and American ports if they make a fight to retain their old established business.

The preparations on Puget Sound exceed all other years as far as canned salmon is concerned. Humps or Pinks are expected to "run" in very large quantities. Canners are expecting to put up over a million and a quarter cases of these Pinks. When one takes into consideration the fact that a case contains 48 one-pound cans, a million and a quarter cases means a tremendous quantity of fish. Putting everything into large pack of barreled fish will be considerably curtailed, and consequently opening prices are very much higher than any former year.

Out here in Western Canada we have not been favored with many war contracts or orders contingent on such. Of course, we are very lacking in manufactures, and this seems to be the main cause. But we still cling to the opinion that there is an unlimited field for canned salmon in these contracts, and that some should be given. We fail to see why other governments, and some of our Allies also, can use these goods to good advantage, and our own Governments cannot. We hope that as time goes on, the advantage will be seen of placing a can of salmon in the kit of every soldier. The soldiers themselves will appreciate such an action. The president of the British Columbia Manufacturers' Association was on a mission to England to try to get some interest worked up in our products, but not necessarily only canned salmon. This gentleman was one of the victims of the sinking of the "Lusitania."

A little excitement was occasioned in the trade by the rumors of a 200-ton order for salt codfish, which was supposed to be required. Very little definite information can be obtained as to the source of the enquiry, but we all hope for the good of the trade that there will be such an order placed shortly.

Smoked Fish.

A few herrings are now on the market again, so fresh

SEINING SALMON

kippers are for sale. Finnan Haddie is still in good demand, and fetching good prices on account of short supplies.

White Spring Salmon is on the market. This is used largely for kippering purposes. When our friends in the East get a good taste of kippered salmon, this branch of the industry will be a very large one.

Pickled Fish.

Owing to very large pack of Pink Salmon anticipated on Puget Sound, a very small pack of pickled pinks is looked for. Alaska will not be able to offer much, as all the pinks offering there will be put into cans. Two years ago the opening price of pickel pinks was about $6.00 per barrel, and they sold as low as $5.00, losing money at this price. As a rule San Francisco sets the price on pickled pinks, but this year no indications of the market price have yet come from her. The impression on Puget Sound is that the opening price will be about $7.50 per barrel, and in fact orders are being booked at this price. This looks to be about right. British Columbia has to get a little more for her pack, owing to the fact that her fish cost her more.

This should be a good year for Pickled Herring all over Canada. The Pickled Fish Inspection Act is now in force, and together with the impossibility of getting the usual European goods, Canada ought to be able to get a hold on the American market. It seems to be a reproach to her, that the U. S. have had to go to Europe for her herring and mackerel. The right goods are to be had if the right method of packing is followed out. But until the individuals cease to put up small scattered lots, the trade will never advance. We must stick to uniform packing as much as possible, and be content to sell the fish to those who will take care to pack them properly. There are men competent to put up this style of fish all over Canada. It has been suggested that the Department at Ottawa in charge of the industry offer inducements to this packing. We all appreciate that much has been done to show fishermen how to pack right and what fish are wanted. But I think that many will agree with me that it is an almost impossibility to get indivual fishermen to take the care and to produce the uniformity that is required. The money to be spent could be used to better advantage by having a form of subsidy. What form this would take would have to be decided upon after careful thought. But I think that a subsidy or some other encouragement to packing companies would fill the want. This would allow the fisherman to sell his fish to the packers and not have to pack himself in inferior packages. He would get probably more in the long run for his fish, and cash at that. Stations built at the most favorable points could be established as in Great Britain. In these days of rapid transport all over the coast, every fisherman, no matter how far he lives from centres, is able to deliver his fish fresh. I shall have something more to say on this head at a later date, as such a movement seems to be the desire of many with the welfare of the industry at heart.

A BUSY DAY AT A B. C. SALMON CANNERY.

A certain quantity of mild cured has already been packed, and it is reported that a market for most of it has been found in New York. This method of curing will be on a very small scale for some seasons to come owing to the big user being Germany.

Salmon.

Spring salmon supplies have fallen off on the Fraser a little of late, and the prices are back to what they were a month ago. A few Bluebacks are still on the markets, and these seem to find a ready sale. They are a nice handy sized fish for a small family. It will be some weeks yet before salmon in any quantity will be on the markets. Express shipments to New York have fallen off owing to low prices being obtained there. New York is now getting carloads from the Columbia river, and also fish is to be had on Puget Sound. The springs or chinooks seem to be a bit early on the Columbia river, and this has meant a short season for British Columbia to ship at a profit.

Halibut.

About all the fish on the market seems to be coming from the northern collecting stations, the boats fishing out of Vancouver arriving with very small catches. Evidently halibut change their haunts, for the Seattle boats are reaping a very large harvest. The first two days of this week a million and a quarter pounds arrived at Seattle. Prices kept up well, notwithstanding the large arrivals. Two Seattle boats took advantage of the new order that permits landing in British Columbia. These vessels sold to local buyers about 200,000 lbs. for shipment in bond to Eastern American points.

It seems that the American boats have discovered some new banks right off their own coast. One thing is certain, and that is of late Seattle boats seem to be able to fill up in a very short time.

Other Fish.

Supplies of cod, soles, bass, oolichans, etc., seem to be plentiful. One has noticed that oolichans are being smoked and packed like the caplin of the Atlantic. Whilst I have not tasted the smoked oolichans, the appearance of the smoked article is very like that of the smoked caplin.

I see by a recent British trade report that frozen lemon soles from Africa made a good impression in England. If these are marketable, now is the time to get all the markets of the world can handle. We have them in unlimited quantities and only wish that we could dispose of half of what get in our nets.

Canned Salmon.

Canned salmon is considered to be somewhat of a gamble this season. This is from a buyer's point of view at least. Whilst the packers will open with a price that will pay them and hold on to this price, still some lots may be let go by small American packers that will affect the markets. A salmon packer usually gets his money back and considerably more. But a buyer no matter how careful he is and how experienced, is apt to be caught napping. Canned salmon from a large buyer's point of view is an uncertain article. The very uncertainty of the business is what makes it attractive.

Price are about the same as usual, the quotations being as follows:—

Sockeye—Talls, 8.25; flats, 8.75; half-flats, 10.25.
Cohoes—Talls, 4.75; flats, 4.75; half-flats, 6.25.
Pinks—Talls, 4.75; flats, 4.75; half-flats, 6.25.
Chums—Talls, 2.75; flats, 2.75.

Wholesale Fish Prices—Vancouver, B. C.

SMOKED FISH.—Finnan haddies, 15s and 30s, 10c to 12c; fillets, 11c; bloaters, 6c; kippers, 7c; salmon, 12c to 15c; halibut, 12c; black cod, 12c.

FROZEN FISH.—Steelheads, 7c; halibut, 6c; smelts, black cod, etc., 8c.

FRESH FISH.—Salmon red springs, 9c to 12c; white springs, 5c; halibut, 6c to 8c; cod, 4c; smelts 6c; soles, 6c; whiting, 4c; skate, 3c; perch, 5c; rock cod, 4c; red cod, 4c; bass, 5c; black cod, 6c.

PICKLED FISH.—Acadia 12-2s and 24-2s, 14c; strips 13½c; tablets, 14c; Bluenose, 1s and 2s, 9½c; pilot, 8½c; Nova Scotia turkey, 7c; Pacific boneless, 8c; Pacific whole cod, 6c.

SHELL FISH.—Crabs, $1.00 to $1.20 doz.; shrimps, 12c to 16c; prawns, 20c; clams, 2c; shelled $1.25 gal.; Eastern oysters, $2.85 gal.; Olympia oysters, $3.25 gal.

Government has decided that the California "sardine" is not a sardine, and has no right to take that name; that the fish is a "stolephorus," but the defintion leaves one in doubt of its good faith.

THE REAL CAUSE OF THE WAR.

According to Mr. Hugh A. Green, of Saskatoon, the real cause of the war is embodied in the following original verses, which are well worth passong on:—

It's fine to have a blowout from a dish that you can eat,
It seems to make the comfort of home life more complete.
To wake up in the morning with an appetite to sate,
And find some "Scotch Cured Herrings" steaming on your plate.
You'll swear the shores to heaven are close to Aberdeen,
And angels ship the dainty fare you bought from Hughie Green.

It's great in times of stringency to know that you can buy
A dandy dish of wholesome fish that toast or broil or fry,
All other stores may close their doors, you'll never be bereft
Whilst Hughie Green frae Aberdeen has "Wee McGregors" left,
You save the cost of cooking, save trouble for the wife,
And eat the very best of fare you ever had in life.

This was the only reason why the Kaiser went to war,
His chef prepared a high-toned dish he'd never had before,
They tasted so delicious he scanned the menu card,
Then with his mailed fist he hit the table good and hard,
At last, he cried, I've found a cause, the finest ever seen,
To get such fare I'll war declare and capture Aberdeen.

BOOK FOR ANGLERS.

The Dominion Parks Branch, Ottawa, has recently issued a publication which is noteworthy on account of the attractive form in which it is printed and the interesting matter it contains. The "Classified Guide to Fish and Their Habitat, Rocky Mountains Park," is written for the sportsman and naturalist rather than the scientist. It is a compilation of first-hand information for anglers by one who has fished in all the principal waters of the Park. It takes up each locality, describes the best means of reaching it, the different varieties of fish which can be secured, and the best bait to use. The game fish of the Rockies includes 5 species of trout, one of which—the Lake Minnewanka trout—has been known to run as high as 50 lbs. The Grayling, the Dolly Varden and the Cut Throat trout are found in many of the lakes and streams of the Park and a fish hatchery has recently been established at Banff for the purpose of re-stocking those which have become depleted.

THE LOBSTER AND LOBSTER FISHERY REGULATIONS

The following bulletin has been issued by the Department:—

As the time is approaching when lobster fishing will be going on along the greater portion of the Coast, the Department takes this means to earnestly request the fishermen and canners to co-operate with it in affording the fishery reasonable protection by carrying on their operations in strict conformity with the regulations. Obviously, it is only when those engaged in the industry co-operate with the Department, that the best results can be achieved.

The Department notes with satisfaction that every year the number of those who wish to have the regulations respected, is rapidly increasing. It has no doubt that those who still will undertake to fish or can, illegally, do not stop to consider that in addition to breaking the law, and thus rendering themselves liable to the penalty involved, they are, to put it mildly, not only acting most unfairly and unjustly to their brother fishermen or canners, as the case may be, but they are seriously injuring their own future prospects and those of others engaged in the industry as well.

It sometimes appears as if those engaged in different branches of the fishing industry, look upon the regulations as framed by unsympathetic minds merely to hamper and restrict their work and their earnings. Nothing could be farther from the fact. The guiding principle in framing all regulations, is to impose the least possible restriction upon those engaging in the industry, compatible with preventing depletion of the fishery. The existing Lobster Fishery Regulations were adopted only after the most careful consideration and investigation into the conditions and requirements of the fishery along the different portions of the Coast and it must be conceded that they do not impose greater restriction on the fishery than its maintenance in a flourishing condition requires.

The Department is, however, strongly of opinion that no one who has a clear understanding of the natural history of the lobster, and consequently, a knowledge of the care that is necessary to prevent the fishery from being depleted, will engage in illegal fishing or canning. It is, therefore, proposed to give in a brief, clear and non-technical way, a description of such history, and it is hoped that the newspapers circulating along the Coast will do their part in bringing such to the knowledge of those mainly interested.

To start with, the lobster is not a fish in the ordinary sense of the word. Its spawning habits are quite different. Unlike free-swimming fish, lobsters mate and the eggs are fertilized when, or rather, as they are extruded from the mother lobster, and they remain attached to her body, where they are kept properly aerated by the motion of the swimmerets until they are hatched. Eggs are usually extruded during midsummer, and are so carried by the mother lobster for ten or eleven months. The mother lobster will, if left in the sea, hatch every hatchable egg, and under natural conditions where the chances are normal for the young lobster coming to maturity. If the eggs are removed by a fisherman and thrown back into the sea, even if they are near the time of hatching, they will perish for want of aeration. They will simply smother. Hence, the primary importance of fishermen carefully removing from their traps any berried lobsters that may be taken by them and returning them uninjured to the water, unless they can be handed over to a lobster hatchery.

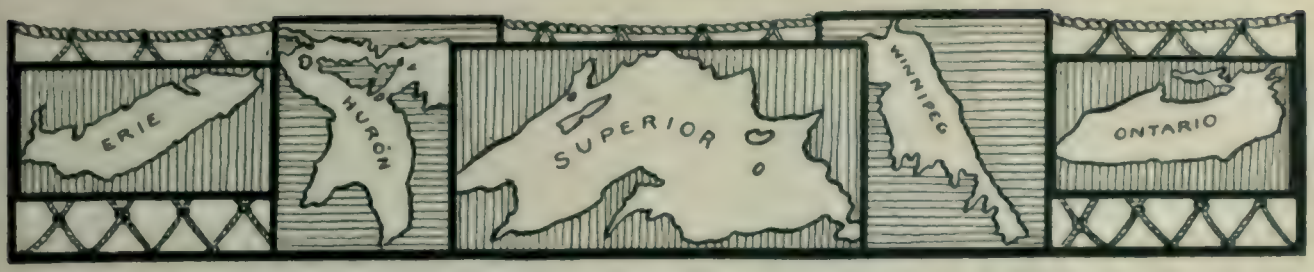
It is now conceded by practically all those who have made a close study of the habits of the lobster, that spawning takes place only once in two years, so that only half the female lobsters will have eggs attached in any one season. Hence, the number of eggs extruded in any year is small as compared with the number of lobsters in the sea. This emphasizes the urgent necessity for the liberation of all berried lobsters that the fishermen may find in their traps.

The bigger the lobster, the greater the number of eggs it will produce. For instance, if an 8-inch lobster will yield 5,000 eggs, a 10-inch lobster will yield 10,000 eggs and a 12 inch lobster 20,000 eggs, etc. Hence, the bigger the lobster,—and consequently the greater the temptation to the fishermen to retain it,—the greater is the importance for liberating it, if the future supply is to be kept up.

Many seem to think that owing to the relatively large number of eggs that a lobster extrudes and hatches there is no danger of sufficient young not being hatched each year to keep up the supply, even if the berried lobsters that are taken in the traps are retained. This might be the case if it were not that the proportion of lobsters hatched that reach maturity is very small indeed.

As the lobsters are hatched they become free-swimming larvae and ascend to the surface of the sea, about which they swim or are carried about by the tides and currents for the first few weeks of their lives. During this time, multitudes of them fall a prey to surface feeding fish. Also, during this period the tiny lobster sheds its shell four or five times—each time becoming more like the adult lobster,—when it becomes a lobsterling and goes to the bottom where it is exposed to fewer dangers, to take up the ordinary life and habits of the lobster. The process of shedding the shell so many times in such a short period, is an exceedingly trying one and comparatively few survive the experience. It is estimated by those who have made a close study of the matter, that not more than at the outside, two lobsters in ten thousand hatched reach the lobsterling stage. When this is realized, the absolute necessity for adequately protecting the berried lobster will be appreciated.

A thorough scientific survey of the Canadian fishing grounds on the Atlantic is being made this summer by Dr. Johan Hjort, Director of the Norwegian Fisheries, who is working under the auspices of the Canadian Government. Dr. Hjort will conduct his investigations from the Government steamer "Thirty-three" and will experiment in the Gulf of St. Lawrence with the drift net gear used largely by European fishermin in their work. There is no doubt whatever that Dr. Hjorts's report will be of great value to the fishermen and the fishing industry of this country.



GREAT LAKES FISHERIES

(Special Correspondence.)

The fishing has opened up on the lakes fully ten days earlier this year than last. This is always a good feature, as it spreads out the production of trout, which is the feature on all the lakes, except Erie, and greatly assists the fishermen to market their catch. There is always a heavy run the first of the season, and this is no exception.

As intimated in these columns nearly a year ago, there has been a decided cut in the prices paid fishermen for trout by practically all the dealers. The biggest cause contributing to this action was the fact that nearly every large dealer in lake trout was left with a large quantity of last year's frozen trout on their hands, and the others who were so lucky as to clear up had to do so at a large loss. As things stand at present, the market for trout is in a much healthier condition for all concerned with the exception of the producer. The whole trouble from the producer's standpoint is that it costs too much to produce the fish and on the other hand the public are turning more and more to the consumption of cheaper fish which has naturally forced down the price of trout.

Lake Erie has produced large quantities of whitefish, blue pickerel, perch and mixed fish. Much of this stock goes to United States points where it finds a ready market that will consume what they can produce. Moreover, the American dealers pay high prices for this stock, as April is a very slack month in fresh lake fish and Lake Erie is the only one of the Great Lakes that caters successfully to this early demand.

There was the usual heavy supply of suckers during April, and the violent fluctuations that take place on the prices for them. The greater part of these fish are used by the Jewish trade, and when stock is scarce they will pay high prices.

Fishermen are paying very much higher at the present time for their gilling nets. Most of them of course are made in Scotland from Belgian or Russian flax, and the war has naturally interfered with the raw material. On the other hand, fishermen using cotton pond nets are buying at very reasonable prices.

It is early yet to predict with any degree of certainty what degree of success the lakes fishermen will have during the season, but given any luck they should do at least as well as a year ago.

To some extent this advance is due partly to the increased cost of freight and insurance, but the main cause is the excessive buying by the Germans on account of the scarcity in Germany of industrial oils;

SOME FISH! SASKATCHEWAN LAKE TROUT WEIGHING 44 LBS.

COD LIVER OIL SUPPLIES.

A drug, says the "Lancet," which is affected by the war in a curious way is cod liver oil; in ordinary times a good yield from the Norwegian fishing industry generally means low prices, for the demand from year to year is much the same. Up to now, the present season's fishing has undoubtedly been good, but the quotations have advanced rapidly since the beginning of the season, until at the time of writing they are about double those quoted when the season commenced about two months or so ago.

it is also suspected that the Germans may be using cod liver oil as a food, but for whatever purpose it is required the fact is established that enormous quantities of the oil are going to Germany, with the result that available supplies for the rest of the world's requirements are substantially reduced and prices higher in consequence.

HALIBUT, AND HOW TO COOK IT.

Canadians eat 10,000 tons of halibut every year. The total catch is about 12,000 tons and of this about 2,000 tons are shipped to the United States and to Great Britain. Most of the supply comes from the Pacific Coast. Nova Scotia fishermen catch almost all the quantity marketed in Eastern Canada. Fifty years ago only the fins of this fish were made use of, and the halibut was considered a pest by the fishermen, on whose vocabulary it had the eloquent influence that the dog-fish exercises at the present time. To-day the halibut fishery is worth about one and one-half million dollars yearly to the Canadian fishermen. The value of the fish has, of course, in recent years been greatly enhanced by means of improved facilities for transporting it to the inland centres of population. Halibut are shipped in a fresh state to all the towns and cities of Canada as well as to the United States.

The halibut is found as a rule wherever the cod is met with. It is the largest of all the flat-fish, with a smooth brown upper surface and the under surface smooth and white. The fish attains a great size. Specimens have been caught weighing fully 500 pounds.

The writer spent an afternoon with an old Nova Scotian fisherman who lives alone and prides himself on his ability to cook a halibut steak. "I often hear people say," said he, as he reached for his frying pan, "that halibut is very dry and of small flavor. That shows all they know about it. I will cook you a steak, and let you judge for yourself."

He cut a couple of slices about an inch thick from a piece of a freshly caught halibut. Over the slices he sprinkled a little salt and pepper. The frying pan was in the meantime on the fire, and a little butter was melting therein. He allowed the slices to fry in the butter for about twenty minutes, then rolled the steaks in flour and broiled them over a clear fire.

The writer ate that halibut steak with enthusiasm, and so far as the toothsomeness of properly cooked halibut is concerned he is of the same mind with that old fisherman.

In this issue we publish a condensed summary of the Otter Trawl Fishing investigation conducted by the United States Bureau of Fisheries. The subject is of vital interest to Canadian fishermen as the recommendations of the U. S. Bureau are likely to form the basis for any Canadian legislation in the matter.

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Vol. II. MONTREAL, JULY, 1915 No. 7

CANADIAN FISHERMAN

THE MAGAZINE OF CANADA'S COMMERCIAL FISHERIES

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are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license

To The Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to--

THE MINISTER OF COLONIZATION,
MINES AND FISHERIES OF THE PROVINCE OF QUEBEC

Department of Marine and Fisheries

LOBSTER FISHERY FISHING SEASONS
IN FORCE ON DECEMBER 1st, 1913

Number of District	LIMITS	Fishing Season	Size
1	St. John and Charlotte Counties, N.B.	Nov. 15 to June 15	4½" carapace
2	Albert County, N.B. and Kings and Annapolis Counties, N.S.	Jan. 15 to June 29	No size limit.
3	Digby County	Jan. 6 to June 15	No size limit.
4	Yarmouth, Shelburne, Queens, Lunenburg, and that portion of Halifax County West of a line running S.S.E. from St. George's Island, Halifax Harbour, and coinciding with Fairway buoys.	Dec. 15 to May 30	No size limit.
5	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys, eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite.	April 1 to June 30	No size limit.
6	From Red Point, between Martin Point and Point Michaud, along the eastern coast on Cape Breton Island, around Cape North as far as Cape St. Lawrence; also the north shore of the Gulf of St. Lawrence from and including Blanc Sablon, westwardly to the head of tide, embracing the shores of the adjacent islands, including Anticosti Island.	May 1st to July 31	No size limit.
7	The Magdalen Islands, including Bird Rocks and Bryon Island.	May 1st to July 20	No size limit.
8	Waters of Northumberland Strait, between a line on the N. W. drawn from Chockfish River, N.B., to West Pt., P.E.I., and a line on the S.E. drawn from Indian Point, near Cape Tormentine, N.B., to Cape Traverse, P.E.I.	May 25 to Aug. 10	No size limit.
9	The waters around P. E. Island except those specified in No. 8.	April 26 to July 10	No size limit.
10	From, but not including, Cape St. Lawrence, Cape Breton Islands, south-westwardly to Flat Point, Inverness County, and from the Lighthouse in Antigonish County opposite Flat Point, westwardly along the strait of Northumberland and coast of Nova Scotia to Indian Point, near Cape Tormentine, N.B., and northwardly from Chockfish River, N.B., embracing the coast and waters of a portion of Kent County and of Northumberland, Gloucester, Restigouche Counties, N.B., and the coast and waters thereof of the Counties of Quebec, south of the St. Lawrence River.	April 20 to July 10	No size limit.

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of Marine and Fisheries is required.

Canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery, and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF NADA, THE SCIENCE OF THE FISH CULTURE AND THE USE AND - VALUE OF FISH PRODUCTS -

F. WILLIAM WALLACE
EDITOR

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Official Organ of the Canadian Fisheries Association

Vol. II. MONTREAL, JULY, 1915 No. 7

FISH FOR THE SOLDIERS.

The Canadian Fisheries Association have taken up the matter of having fish listed as a permanent ration in the Military menu. Several of the Association Directors have made individual representations to the Department of Militia in this respect and concerted action has been taken by President Byrne and Vice-President S. Y. Wilson.

In reply to Mr. Byrne, the Deputy Minister of the Naval Service wrote as follows:—

"I have your letter of the 26th ultimo, in which you solicit the assistance of this Department in making an effort to have fish embodied as part of the rations of the troops located in barracks and concentration camps. This matter was taken up with the Department of Militia last winter, and on the 7th February ultimo the Department was advised that authority had been granted for fish to be issued in lieu of beef or bacon, when requested by the officers commanding units. The Department has been endeavoring to have fish used as a staple article of diet by the Royal North West Mounted Police, and in the different penitentiaries.

The Department is in full accord with the view of the Association that it would be in the interests of economy, and of the general health of the soldiers if fish in good condition were regularly served to them, and the matter is being further taken up with the Department of Militia.

Yours truly,

(Signed) G. J. DESBARATS,
Deputy Minister of the Naval Service."

The President of the Association acknowledged the Deputy Minister's communication as follows:—

June 9, 1915.

G. J. Desbarats, Esq.,
Deputy Minister, Dept. of Naval Service,
Ottawa, Ont.

Dear Sir,—Acknowledging yours dated June 8th.

I am pleased to learn that the question of having fish embodied in the regular rations for troops in training, as well as for the concentration camps, will have the active assistance of your department, also to learn that you are in full accord with our views in this connection.

There would be no difficulty in procuring supplies of suitable fish at the various points where troops are now being trained in camp or in barracks and, as you are aware, fish would be an excellent substitute for high-priced meats, while at the same time having the advantage of variety in the food supplied to our soldiers. The question of economy may well be put forward also, especially in connection with the concentration camps where large numbers of men are being fed at the expense of the Government.

An effort is being made to have an Order-in-Council passed whereby fish will be supplied to the troops every week, and we are now assured of active support from the Prime Minister in this connection, since Sir Robert Borden states that he is favorably impressed with the idea. Any assistance which your department can lend in attaining the object in view will be appreciat-

ed, not only by our association, but also by those engaged in the fishing industry throughout Canada.

Yours sincerely,

(Signed) D. J. BYRNE,
President.

The Vice-President, Mr. S. Y. Wilson, has made strong representations to the Nova Scotia Government and Premier Borden on behalf of the fishing industry, and we are able to state that it is the intention of Premier Borden to support a measure to have an Order-in-Council promulgated at the next Council whereby fish will be installed as a food item in the Militia Regulations.

The Association has procured the prices at which fish of all kinds can be supplied the troops stationed at the various barracks and camps throughout Canada and this memorandum will be duly presented to the Government. The economy and value of a fish ration will be clearly illustrated, and the placing of fish upon the soldier's menu will prove no inconsiderable benefit to the fishing industry of Canada.

Pioneer work of this nature is necessarily tardy, but the Association will take up the numerous problems incidental to the fish trade, and keep plugging away at them until the desired end is accomplished. Like modern warfare, we have to go slow and advance in inches and not in miles.

IMPROVED FREIGHT SERVICE FROM MARITIME PROVINCES.

Largely through the efforts of the newly-organized Canadian Fisheries Association, the Department of Fisheries at Ottawa have arranged with the Canadian Government Railways, the I.C.R., to inaugurate and improve freight services, for the carrying of fresh fish from the Maritime Provinces to Montreal.

We have been furnished the following information, by Mr. A. H. Brittain, Chairman of the Transportation Committee, Canadian Fisheries Association:—

A fast freight refrigerator car will leave Mulgrave Monday, Thursday and Saturday on train No. 25, arriving at Montreal, Thursday, Sunday and Tuesday of each week.

Shipments from Halifax and other points leave at 1.20 a.m. on train No. 13, which will be consolidated at Truro with the through fast freight from Mulgrave.

The cars which leave Monday and Thursday will be iced at shipping point and in transit, through an arrangement made by the Department of Fisheries with the I. C. R.

To encourage the further development of this service shippers are requested to try and get shipments of at least 10,000 pounds, for these different days, but if the cars do not contain 10,000 pounds, they will be forwarded just the same.

Special attention should be drawn to the fact, that the car which leaves Saturday from Mulgrave, and the connections from Halifax, will be shipped in a refrigerator car when necessary, but the icing charges on these Saturday shipments will have to be taken care of, either by the shipper or the consignee. The icing charges on L. C. L. shipments leaving Saturday will be 10 per cent of the freight rate, and if full carloads are sent forward, the icing charges will be at the rate of $2.50 per ton."

It is however to be regretted, that those interested in the fish business have been unable to influence the Intercolonial Railway to carry the express refrigerator car, which was shipped last season on Saturday, attached to the passenger train reaching Montreal on Sunday night. This service did a great deal to develop the fresh fish business from the Maritime Provinces, but the authorities state, that the special freight service inaugurated should answer the purpose. We however believe that this express refrigerator car service should also be inaugurated, as it certainly did a great deal to help the sale of Atlantic sea foods in the Province of Quebec, and particularly in the Province of Ontario.

The Members of the Canadian Fisheries Association are asked to co-operate with the Railway Company to try and develop the service inaugurated and enable us to apply to the railways for a daily service when the business offers.

CONSTRUCTION OF BARRELS FOR PACKING FISH.

Equal in importance to the quality of the fish is the quality of the package, and we would call the attention of packers and coopers to the requirements of the Pickled Fish Inspection Act. Poor packing and leaky, ill-coopered barrels have done more to give Canadian packed fish a bad name than anything else. Anything in the shape of a barrel—whether it would hold the pickle or not—seemed to many careless packers good enough to pack fish. Those who purchased these slovenly packed shipments became wise by experience, and remembered Canadian packed fish to its disadvantage.

The Act will give us a chance to retrieve a bad name. Let us start now with a clean sheet and live up to the recommendations of the Act so that Canadian packed fish will take its place in the world's markets with the first class products of Scotland, Norway and Sweden.

For the information of those who have not seen the requirements of the act with regard to barrel construction, we print them at length:—

1.—The staves and heading of every barrel and half barrel shall be composed of well seasoned close grained wood of good quality and capable of retaining pickle.

2.—In course of construction, every barrel and half-barrel shall be well fired so as to admit of the staves being bent to the requisite extent, and the staves shall not be cracked, broken or patched.

3.—The staves of every barrel, when completed,

shall be not less than five-eighths of an inch, and the heading not less than three-fourths of an inch in thickness; and the staves of every half-barrel when completed, shall be not less than nine-sixteenths of an inch and the heading not less than five-eighths of an inch in thickness.

4.—The staves of every barrel and half-barrel shall not exceed five inches, and shall not be less than two inches and one-half inch in breadth at the bilge.

5.—The heads of barrels and half-barrels shall be composed of not less than three pieces and shall be securely fastened with either hardwood or iron dowels. All heads shall be bevelled one-third outside and two-thirds inside, and shall fit properly in a clean-cut croze, one-eighth of an inch deep.

6.—The chimes shall be one inch in length from the top to the croze.

7.—Every barrel and half-barrel shall be hooped in one of the three following ways, viz.:

(a) entirely with wooden hoops;

(b) partly with wooden hoops and partly with iron hoops;

(c) entirely with iron hoops.

8.—Every barrel hooped entirely with wooden hoops shall be full-bound on both ends, that is, from the quarter to the end.

9.—Every barrel hooped partly with wooden hoops and partly with iron hoops shall have an iron hoop on each end, two inches wide of wire gauge No. 16 if of black iron and No. 17 if of galvanized iron, and shall have not less than three good wooden hoops on each quarter.

10.—Every barrel hooped entirely with iron hoops shall have an iron hoop on each end as defined in Clause 9, and shall have two iron hoops black or galvanized on each quarter, one and one-fourth inches wide of wire gauge No. 18, and there shall be one and one-half inches between the upper and lower quarter hoops on each quarter.

11.—Every half-barrel hooped partly with wooden hoops and partly with iron shall have an iron hoop on each end one and one-half inches wide of wire gauge No. 17 if of black iron and No. 18 if of galvanized iron, and shall have three good wooden hoops on each quarter.

12.—Every half-barrel hooped entirely with iron hoops shall have an iron hoop on each end as defined in Clause 11, and shall have two iron hoops, black or galvanized, one inch wide of wire gauge No. 18 on each quarter, and there shall be one and one-quarter inches between the upper and lower hoops on each quarter.

13.—Every barrel shall have a space of ten inches, and every half-barrel a space of nine inches across the bilge between the quarter hoops.

14.—The wooden hoops on every barrel and half-barrel shall be of sound hardwood, and be not less than three-fourths of an inch for barrels, and five-eighths of an inch for half-barrels in breadth at the small end; and each hoop shall be properly notched, perfectly fitted and firmly driven to its place.

15.—Every barrel and half-barrel shall be made perfectly tight and before they leave the maker's hands he shall bore a hole three-eighths of an inch in diameter, through the head of every barrel and half-barrel, and by blowing into them test their air-tightness. A half pint of weak pickle should be poured into every barrel and half-barrel before the head is put in, to assist in the detection of leaks.

16.—The staves of every barrel, intended to be filled with cured herring or alewives shall be twenty inches in diameter at the bilge, outside measurement, and be capable of containing not less than twenty-two gallons imperial measure.

17.—The staves of every half-barrel intended to be filled with cured herring or alewives shall be twenty-two inches in length, and the heads fourteen inches in diameter, i.e., a fourteen inch cut head; and every such half-barrel shall be 17 inches in diameter at the bilge, outside measurement; and be capable of conatining not less than eleven gallons imperial measure.

18.—The staves of every barrel, intended to be filled with cured mackerel or salmon, shall be twenty-nine inches in length and the heads seventeen inches in diameter at the bilge, outside measurement, and be capable of containing not less than twenty-six gallons imperial measure.

19.—The staves of every half-barrel intended to be filled with cured mackerel or salmon shall be twenty-four inches in length, and the heads fourteen inches in diameter, i.e., a fourteen-inch cut head; and every such half-barrel shall be eighteen inches in diameter at the bilge, outside measurement, and every such half-barrel shall be capable of containing not less than thirteen gallons imperial measure.

20.—The heads of every barrel and half-barrel shall be planed on the outside.

21.—On every barrel and half-barrel the name of the maker and the place of making shall be stamped in small but legible letters in the space between the upper quarter hoop and the end hoop, on quarter-hooped barrels, and close to the lower hoop on full bound barrels.

SPECIAL EDITION OF THE CANADIAN FISHERMAN.

The September issue of the CANADIAN FISHERMAN will be a special double number illustrative of the Fishing Industry of Canada. Numerous photographs of fishing scenes and views of Canadian plants with biographical sketches of leading firms engaged in the Industry will be a feature of the edition and every effort will be made to make the special number a real souvenir of the vast fishery resources of the Dominion.

We want to show the world just what we have and what we can do in this country when it comes to fish

and fishing, and we trust that the members of the trade will assist us in getting up a really creditable number and one which will be kept in the book-case for future reference.

The special edition will be published while the Canadian National Exhibition at Toronto is being held. At the Exhibition, there will be a notable Fisheries Exhibit on a scale larger than in previous years. The Executive Meeting of the Canadian Fisheries Association will probably be held in Toronto while the Exhibition is on and the month of September offers many opportunities for Fisheries publicity. Why not make it a "Fish Month"?

KULTUR AND THE FISH TRADE

The large consumption of fish in Germany is due to the doctrine of German "Kultur" according to "Saturday Night," Toronto, which says: "The idea of German "kultur" has been to sweat the laborer, skilled or unskilled, to the last ounce of his endurance, and to feed him on the coarsest food as a reward for his efforts. In recognition of his virtues he has the honor of being kicked into the gutter by swaggering sergeants —perfecting their candidacy for the Iron Cross. When he craved for meat, there was always horseflesh if he had the money to pay for it, and in some parts of Germany the flesh of dogs. A highly educated German, from Hesse-Darmstadt, told the writer two years ago that if it was not for the cheapness of fish in Germany the working classes could not survive. We hear much of the German frugality. How could the German be other than frugal under such conditions?"

TOLL OF THE SEA

"Peace hath her horrors no less than War!" While Canada has lost many of her sons in the trenches of Flanders, yet the last few weeks have claimed an unusual number of lives in the Canadian Atlantic fisheries.

In a heavy blow on May 27th, four men of the Lunenburg fleet were drowned while fishing in the North Bay. They were caught out in their dories and it is presumed that they capsized in the heavy sea common to the locality in an easterly breeze. The lost men all belonged to Lunenburg County and the loss is keenly felt.

In a summer gale in the Bay of Fundy during the same period the fishing schooner "Elmer" of Port Wade, N.S., was caught on a lee shore off Parker's Cove, N.S. The vessel started to drag her anchor and while abandoning the doomed craft in a dory, four men were drowned while another had a narrow escape. About the same time, a fisherman belonging to the schooner "Lila Boutilier" of Digby, N.S., was drowned through the capsizing of a dory on the fishing grounds.

Nine men from the Nova Scotia fleet within a few days is a heavy toll and in the rural communities where the men hailed from, the accidents have had a depressing effect. The CANADIAN FISHERMAN extends its sympathy to the relatives of those who died while prosecuting their vocation upon the waters.

THE UNITED STATES TARIFF AND "BONELESS" CODFISH.

A question has arisen across the border over whole salted codfish, which is in a green salted state, split and with a portion of the backbone removed. Numerous shipments of a similar nature have gone from Canada in the past and have been admitted into the United States free of duty under the terms of the Underwood Tariff, but latterly a shipment from Nova Scotia consigned to the large fish firm of Cunningham and Thompson, Gloucester, Mass., has been held up by the U.S. Customs and appraised by them as "boneless" fish subject to a duty of 3-4 cents per pound. The consignees paid the duty under protest and have referred the matter to the authorities at Washington.

It seems to us that the United States Customs people are hair spliting in this case and seeking an excuse to place a tariff upon a largely imported article. Everybody in the fish trade knows that this fish is not "boneless" in the accepted sense of the term, nor is it sold as boneless fish. If such quibbling is to be followed up, the so-called "Free Fish" is liable to become but an empty phrase.

We are glad to note that the large fish interests in Gloucester are taking the matter up with their Government and a ruling upon the question should be given shortly.

PISCATORIAL PARAGRAPHS.

Captain Howard Anderson of Digby, N.S., and Captain H. F. Robinson of Canso, N.S., were in Montreal recently.

* * *

The Grimsby steam trawler Titania will fish off the Canadian coast this summer.

* * *

Mr. W. M. Hodge, President of the Lockeport Cold Storage Co., Ltd., Lockeport, N.S., was in Montreal recently. Mr. H. B. Short of Digby has returned home after a pleasant trip to the Pacific coast, and the Panama-Pacific Exhibition.

* * *

Vessels in search of herring cargoes at the Magdalen Islands report unsuccessful trips. The Gulf ice stayed around the Islands so late that when it went out the herring had all gone. The trawlers, however, managed to secure their Magdalen baitings, though with difficulty, owing to abnormal ice conditions.

The Pickled Fish Inspection Act is now in operation. All fishermen and packers putting up their own fish should procure a copy of the Act, which can be had on applying to the Department of Naval Service, Ottawa.

* * *

Mackerel, as we predicted some time ago, has struck our coasts in great numbers this year. Let us again pass the word to the packers—"Follow out the recommendations of the Pickled Fish Inspection Act and look to your barrels!"

* * *

In this issue we reproduce an article from the Forecast Magazine upon the New York Globe's cheap fish campaign. While we do not altogether agree with all the writer says upon the undue profits made by wholesalers and retailers, yet the article is sure to be of interest to those engaged in the Canadian fishing industry.

* * *

The Annual Convention of the Oyster Growers and Dealers Association of North America was held in Washington on June 15th and 16th. Mr. D. J. Bryne, President of the Canadian Fisheries Association, is a Director of the Oysters Growers Association and was present at the Convention which is one of the biggest affairs of its kind in the fish world.

* * *

Some big halibut trips have been landed by American halibuters coming out of the Gulf grounds. Captain Peter Dunsky in the "Teazer" landed in Gloucester on June 3rd with 60,000 fresh and 15,000 pounds of flitched halibut. The price paid was 9 cents for white and 5 cents per pound for gray. The "Georgiana," Capt. Gourlay Anderson, on June 6th, brought in a trip of 40,000 pounds of fresh halibut. Both vessels fished the Gulf and Anticosti grounds The halibuter "Aloha" caught fire on June 4th off Ellis Bay, Anticosti and was burned to the water's edge. The crew made Ellis Bay and Gaspe in the dories. Canadian halibuters at present in the Gulf are the Digby schooners "Albert J. Lutz" and Dorothy M. Smart" and schooner "Kernwood." It is reported that the "Smart" and "Lutz" have struck hard luck with bait and that the "Smart" had left for her home port without bait or fish of any kind. The "Lutz" was over on the Labrador looking for bait. Ice blockade at the Magdalens has been responsible for the scarcity.

TRADE ENQUIRIES.

Mr. Georges D'Antalis, Le Piree, Greece, desires to act as agent for Canadian firms handling sardines, libsters, crabs, salmon, tuna and every other kind of salted and preserved and conserved. Commission according to the custom of the market. Samples and conditois solicited. Correspondence in French and English.

CANNED SALMON IN PERU.

A certain amount of preserved fish is imported into Peru which includes canned salmon. The bulk of the salmon comes direct from the United States, but there is no reason why it should not also be supplied from British Columbian ports. The chief difficulty is that all the large importing houses have their agents in the United States, and have been accustomed for some years to follow along certain trade lines. The business can never be an important one for the reason that the bulk of the population in Peru is too poor to purchase any large quantity of canned salmon.

1915 JULY FISH DAY CALENDAR 1915

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
-	-	-	-	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FISH, THE FISHERMAN, AND THE CONSUMER

IS THE PRICE PAID THE FISHERMAN UNREASONABLY LOW, AND THAT PAID BY THE CONSUMER UNREASONABLY HIGH?

Address Delivered Before the Canadian Fisheries Association by CLARENCE JAMESON, M.P. for Digby, Nova Scotia, and Chairman of the Marine and Fisheries Committee of the House of Commons.

Mr. President and Gentlemen:

During the late session of Parliament I placed on the order paper the following resolution which, owing to the exigencies of the business before the House, was not reached:

"Whereas, fish is a highly nutritious and palatable article of food, of which abundant supplies are continually available at low prices at the sea coast and inland waters of Canada; and, Whereas, in order that an increased demand for fish might be speedily developed in the interior markets of the country by having the same placed thereon in prime condition and at moderate prices, the Government has been and is assisting the industry, under certain conditions, by paying a portion of the express charges, and providing more adequate transportation facilities; notwithstanding which, the prices at which fish can be purchased in such interior markets seems unreasonably high, as compared with those received by the producer, which condition is militating against the ends in view.

"Therefore, be it resolved, That in the opinion of this House, it is desirable that an inquiry should be made to determine if possible the cause or causes of the great discrepancy between the price of fish at the places of production and that charged on the interior markets.

"And it is further resolved, That this resolution be referred to the Committee on Marine and Fisheries with instructions to consider the subject matter thereof and make such inquiry."

Had the subject come up for discussion, a number of members from different parts of Canada were prepared to participate in the debate, and my opinion is that the discussion and any subsequent inquiry by the Marine and Fisheries Committee, would have been productive of good results.

The press of Canada has evinced an interest in the subject which is most encouraging. With the great assistance which it can lend by fair discussion of the problems involved. I believe that much can be accomplished towards overcoming, in time, the obstacles which stand in the way of affording the people of Canada a constant supply of fish, in prime condition, and at fair prices, stimulating thereby, at the same time, the industry in all its branches.

It will, I think, be admitted that in computing the annual value of the food products of Canada, too little importance, from a national and economic standpoint has, heretofore, been attached to the harvest won by our fishermen from lake and sea.

A quarter of a century ago this was valued at less than eighteen millions of dollars, while last year it totalled over thirty-three millions.

Of this, about 50 per cent was consumed in Canada in 1914, either in a fresh state or lightly cured. Some two and a half million dollars worth of fish and fish products were imported, oysters representing a substantial part, while our fish as exported was valued at $20,698,849.

Table 1.

Let me give the value of the fisheries of the different provinces of the Dominion for the year 1913-14:—

	Sea Fisheries. Green State.	Sea Fisheries. Marketed.
Nova Scotia	$6,584,933	$8,297,626

New Brunswick:—

Sea Fisheries. Green State.	Sea Fisheries. Marketed.	Inland Marketed.	T'l Mark'd Value.
$2,945,577	$4,266,759	$41,948	$4,308,707

	Sea Fisheries. Green State.	Sea Fisheries. Marketed.
Prince Edward Island	$1,016,842	$1,280,447

Quebec:—

Sea Fisheries. Green State.	Sea Fisheries. Marketed.	Inland. Marketed.	T'l Mark'd. Value.
$1,190,492	$1,736,581	$113,846	$1,850,427

	Inland.
Ontario	$2,674,685
Manitoba	606,272
Saskatchewan	148,602
Alberta	81,319
Yukon Territory	68,265

	Sea Fisheries. Green State.	Sea Fisheries. Marketed.
British Columbia	$9,647,348	$13,891,398

Total marketed value Canadian Fisheries. $33,207,748

Table 2.

The amount invested in fisheries in 1914 by divisions: was—

Atlantic Division (consisting of Nova Scotia, New Brunswick, Prince Edward Island and Gulf Division of Quebec)	$12,991,080
Inland Division (consisting of Inland Quebec, Ontario, Manitoba, Saskatchewan, Alberta and Yukon)	1,983,340
Pacific Division (Consisting of British Columbia)	12,489,613
	$27,464,033

Table 3.

The number of persons employed in the fisheries in 1914, was:—

	Fishermen.	In Fish-houses, Freezers, etc.
Atlantic Division	49,769	17,179
Inland Division	10,691	323
Pacific Division	11,316	9,391

Total number of fishermen	71,776
Total number in fish-houses	26,893
Curing and preparing fish for market	98,669

The fish marketed from the Atlantic Division, consist principally of cod, halibut, cusk, pollock, herring, mackerel, sardines, smelts and haddock, from which latter the standard finnan haddies are produced. To this should be added lobsters, which are chiefly tinned, or shipped fresh to the American market, where the demand is fairly regular, and to which from certain districts the means of transportation assures quick delivery, which is imperative.

The fish marketed from the Pacific Division consist chiefly of salmon and halibut, while the Inland waters yield whitefish, trout, pickerel, bass and pike.

Food fishes caught by the Canadian fishermen constitute a nutritious and palatable article of food. Authorities on food values have worked out a table, showing the relative nutritious properties of various food fish and meats, which is very striking. This information has been included in a booklet recently prepared by the Superintendent of Fisheries, and issued by the Department, entitled "Fish and How to Cook it." The pamphlet which is of great value to housekeepers may be obtained upon application to the Department of Naval Service. My information is that the publication is in much demand, and has already been productive of good results by assisting in popularizing fish as a diet, thus tending to increase the call therefore.

Generally speaking, fish may be classed as from two per cent to four per cent poorer in nutritive nitrogenous ingredients than meat, though in some instances, notably in the case of cod steaks its nutritive properties run higher.

I will read a table showing the comparative food values of fish and meats.

Table 4.

Kinds of Material	Protein by Factor (n X 6.25) %
Fresh Fish.	
Cod (steaks)	17.0
Cod (dressed)	11.1
Cusk (dressed)	10.1
Hake (dressed)	7.3
Haddock (dressed)	8.4
Halibut (Dressed)	15.3
Herring (whole)	11.2
Mackerel (dressed)	11.6
Pickerel (dressed)	12.0
Pollock (dressed)	15.4
Salmon Atlantic (dressed)	15.0
Shad (dressed)	10.6
Smelt (whole)	10.1
Sturgeon (dressed)	15.1
Oysters in bulk	6.0
Oysters in shell	1.2
Long-neck clams in the shell	5.0
Little neck clams in the shell	2.1
Mussels in shell	4.6
Lobster in shell	5.9
Lobster in can	18.1
Crabs in shell	7.9
Crabs in can	15.8
Other Animal Foods.	
Beef, side, medium fat	14.8
Mutton, side	13.0
Average of beef, veal and mutton	14.5
Pork, side	8.3
Chicken	13.7
Turkey	16.1
Milk	3.3
Vegetable Foods.	
Wheat flour	11.4
Wheat bread	9.2
Beans, dried	22.5
Potatoes	1.8
Cabbage	1.4

Not only do food fishes constitute a very nutritious diet, but it has been stated upon the authority of eminent scientists that fish is the brain food "par excellence."

This prompts me to observe that of the five Canadian born Prime Ministers of the Dominion, namely, Sir John Abbott, Sir Wilfrid Laurier, Sir John Thompson, Sir Chas. Tupper and Sir Robert Borden, the three last-named, came from the Province of Nova Scotia, where for upwards of a century, the fish diet has held an assured place in the domestic economy of every well regulated household.

For years past the price of meats has been steadily advancing in this country, as well as in the United States. This has been due largely, among other causes, first to the increase in population and second, to the relatively lesser number of food animals raised both in the United States and Canada.

This latter state of affairs, while deeply to be regretted in itself, nevertheless, has led to the increased use of fish as a nutritious, and yet cheaper, food. But we find that the price of certain sea foods, at points distant from the place of production, is higher than seems necessary or reasonable, for fish should be cheap in Canada.

If the fisherman, who by toil, industry and hardship compels the sea to yield him tribute, were deriving the advantage of this price, there would probably be little or no complaint on any side. A fisherman, however, secures relatively small advantage from the cost to the consumer; although his price has advanced somewhat of late years. Nor does the shipper get the benefit of this price. He is subject to competition among shippers and must accept a fair profit only, or he cannot continue to do business.

Yet, it should be borne in mind that in a country of great distances such as Canada, many miles separate producer and consumer, and that transportation charges and the legitimate profits of dealers have to be paid.

The rates charged on fish by the express and transportation companies are, however, a subject of much concern. And not only do some people engaged in the fish trade consider them unduly high, but in certain instances actual discrimination, affecting adversely cities in the interior of Canada, has been more than hinted at. I may add that fresh and lightly cured fish, generally speaking, require to be shipped by express, in order to reach the consumer in prime condition.

I have a memorandum showing express and freight rates on fish, which is of much interest.

Table 5.

Transportation Rates—Fresh Fish.

EXPRESS

From Halifax or Mulgrave to:	From St. John or St. Andrews to:
Quebec	$1.25	$1.25
Montreal	1.50	1.30
Ottawa	1.60	1.40
Toronto	1.75	1.60
Hamilton	1.90	1.60
London	2.00	1.75
Windsor, Ont.	2.50	2.00
Digby to Montreal	1.50	....

Per 10 0lbs. net weight of fish, including delivery.

FREIGHT

	Carload.	L.C.L.
From Halifax to Montreal	.26	.35
From Mulgrave to Montreal.	.28	.38
From St. John to Montreal.	.22	.31
From Digby to Montreal.	.27	.51

Per 100 lbs. gross weight, delivery extra.

EXPRESS

From Vancouver or New Westminster to:	Carload.	L.C.L.
Calgary	$2.50	$2.80
Edmonton	2.75	3.20
Regina	2.50	3.60
Prince Albert	3.75	4.80
Winnipeg	2.50	3.60
Toronto, Montreal or Boston	*3.00	....

Per 100 lbs., including delivery, charge on net weight of fish in C. L. lots and on net weight plus 25 per cent for ice and packages less than C.L.L.

From Prince Rupert to:		
Edmonton	$2.50	$3.20
Regina	2.50	3.60
Prince Albert	3.30	4.20
Winnipeg	2.50	3.60
Toronto, Montreal or Boston*	3.00	....

* A delivery charge of 15 cents is made in Boston.

FREIGHT

From Vancouver or New Westminster to:	Carload.	L.C.L.
Calgary	.94	$1.88
Regina	1.25	2.55
Winnipeg	1.25	2.87

Per 100 lbs. gross weight, delivery extra.

From Prince Rupert to:		
Edmonton	.70	....
Winnipeg	1.25	....

The Marine and Fisheries Department, has for some years been endeavoring to aid in securing a market for the producer, and good fish, at fair prices, for the consumer. It will be of interest to state what has been done in this way.

Table 6.

In this connection the Federal Government is giving the following aid to develop the fish business:

(a) It accepts responsibility for one-third of the express charges on less than carload shipments from all points on the Atlantic Coast to destinations in Quebec and Ontario, and from all points on the Pacific Coast to destinations as far east as the Eastern boundary of Manitoba.

(b) It has arranged for a weekly refrigerator express service from Mulgrave to Montreal, shipments from Halifax being consolidated in the car at Truro one day each week during the summer season. In addition to paying one-third of the transportation charges on shipments in this car, the express and railway companies are guaranteed that the earnings on this car will be at least those on 10,000 pounds.

(c) It has made available to the shippers at Mulgrave and Halifax a cold storage freight car one day each week by guaranteeing the railway that the earnings on this car will be at least those on two-thirds of a minimum carload of 20,000 pounds at carload lot rates.

(d) It has for the past two seasons given a first class exhibit at the Toronto Exhibition, which has been awarded a Gold Medal each year.

(e) It has sought to advertise fish by the issuing of a booklet which has been broadly distributed throughout the country.

The shipments carried by express on which a rebate is paid, include fresh and mildly cured fish, such as smoked fish as well as shellfish. The increase in the sales resulting will be gathered from the payments made to the express companies during the past number of years, which are as follows:—

Year.	On Shipments from East.	On Shipments from West.
1909-10	$15,162.20	$13,541.76
1910-11	16,898.13	21,896.73
1911-12	19,620.62	35,315.10
1912-13	29,969.48	39,277.13
1913-14	37,818.85	44,114.47
1914-15 (19 mos.) to Dec. 31, 1914.	19,904.00	29,495.23

In view of this assistance in the transportation charges upon fish, and the increased quantities handled, it might reasonably have been hoped that the cost to the consumer would have been reduced. The tendency of the price has, however, been rather to go up than to become less.

Let us for a moment follow the journey of the fish from the boat to the table. Having been purchased from the fisherman and dressed and lightly cured, or packed in ice, and shipped by the local buyer, it reaches some centre in the interior of Canada, where it is laid down at a cost which, while depending somewhat on the variety of the fish, can yet, be regarded as fair. It is then sold to the retailer, who may do business fifty or one hundred miles distant, involving further transportation expenses, and by him again sold, this time to the consumer, at a price which is startling, when compared with that received either by the fisherman or the local shipper.

Two important facts should not be overlooked:

First: that the ownership of the fish has changed four or five times between producer and consumer, and secondly: that the shrinkage in weight of a fish the first twenty-four hours after being taken from the water, is from five per cent to ten per cent, while a further shrinkage, by loss in the cutting of the fish by the retailer, must be allowed for.

Thus there are expenses and there are profits at every stage of the journey which the fish makes be-

tween the fisherman who wins it from the sea, and the retailer whose driver delivers it at the door of the consumer, who may live 100, 500 or 1,000 miles from the waters from which it was taken.

As we have seen, there is a startling discrepancy between the price paid to the producer and that paid by the consumer. My hope would be that by effecting a short circuit, so to speak, between producer and consumer, in other words by eliminating unnecessary or excessive transportation charges, and certain middlemen's profits, the price to the consumer would be lowered, while that to the fisherman could at the same time be maintained as at present, or even raised, and a better article given.

One thing is sure; so long as the present system continues, the price paid the fishermen will not be materially increased, nor that paid by the consumer reduced, because of intermediate waste.

My information is that in England the system of the delivery of sea foods has been so perfected that a part at least of the trade is almost, if not quite, direct between the buyer at the port of entry and the consumer. This obviates the profits of middlemen and imposes only the minimum cost of transportation. The fish, too, reaches the consumer in prime condition. The household which uses fish regularly, has a standing order for delivery on certain days each week, and the dealer ships it in a hamper, which is returned to him and re-used. Of course, in England distances are trifling and population great, as compared with Canada, while the demand is steady.

Again, if my information serves me, fish trains, under ordinary conditions, leave Grimsby for various cities in England each night. They carry fish only, and I have been informed, have the right of way over all other classes of express traffic. This seems to illustrate the importance of the business as there conducted.

As a nation we have not yet, perhaps, entirely outgrown the extravagance of the pioneer, in our use of the natural wealth of the country. This, no doubt, in some measure, is the reason why the consumer calls for fish, not only of standard variety, but also of standard size; the smaller, which in other countries find a ready market, being in little demand here.

And here I venture to express the opinion that the modern method in towns and cities of purchasing food for the household by telephone, rather than as formerly by a visit to the market or shop, and the delivery by the seller instead of the purchaser, is probably in itself responsible for a substantial increase in the cost of supplying the family table.

In the distribution and sale of food fishes, is there needless expense, which can be eliminated?

Is there undue profit?

Are there excessive transportation or other charges?

These are questions to which it is impossible to give an off-hand answer, yet they are questions which should be answered if possible. They are questions of importance to the consumer, who wants to know he is not paying undue profits; and no less are they of importance to the fisherman, whose future market must depend in a great measure upon the product of his industry, being available to the consumer at fair and reasonable prices.

If an industry of real importance in the economic life of the country is being neglected, or unduly exploited or if a food supply of great dietetic value is being so dealt with as to prevent it from becoming generally available, under the best conditions, for the use and advantage of the people of Canada, it is in the hope that some means may be found to remedy so undesirable a state of affairs, that I have brought this subject forward.

No doubt at the next session of the House a parliamentary enquiry will be begun. Meantime, those who are desirous of helping can assist materially by preparing to supply information and practical suggestions which will tend to facilitate and render useful the work of the Fisheries Committee.

THE LONELY MAGDALENS

GLANCES AT MAGDALEN FISHING LIFE

By R. P. GETTY.

"So m'sieu will visit the fishermen of the Magdalens? That is good." and the tall, black-garbed priest who had just spoken drew up his chair to the lee rail by our side.

"But remember!" he added, as he settled himself comfortably for a talk, "You are going to a people who do not belong to the outside world."

We were on a small steamer which plies between the mainland of Nova Scotia and the tiny Magdalen archipelago, almost in the centre of the Gluf of St. Lawrence.

It was a foreign-looking group which boarded the vessel that summer afternoon at Pictou, not more than a dozen souls all told. A trio of girls, carrying big bundles and wicker travelling bags, laughed and talked among themselves, tossing black hair, and flashing brown eyes full of life and vivacity. Picturesque were the few swarthy men who rambled away in their French lingo, gesticulating earnestly when they became a bit excited; fishermen of the Magdalens we learned later who had been working all winter in the coal fields at Stellarton, and were now returning home. And last, the figure of the priest, erect and dignified, who was talking to us in such excellent English notwithstanding his decided French accent.

"Yes, m'sieu", he continued, "These Magdalen fishermen lead such isolated existences up here in the Gulf that generations of families, fathers and their sons following them, mothers and daughters likewise, have never seen any other place but these rocky islands. There is little of the wanderlust among the average natives. Most of them are content to spend their lives where they were born."

During a pleasant evening on deck we learned much concerning these Magdalen fishing folk. How they were the descendants of these hardy pioneers who settled in New France under the leadership of Champlain, and that probably five thousand of them dwelt scattered over the islands of the archipelago. That French was the language mostly in use. The little steamer

was due at Amherst, the capital of the group, at sunrise, but the stars still shone in the sky, and a grey mist hung over the waters of the Gulf when we ventured on deck the following morning. Our friend, the priest, was already there taking his constitutionl walk.

"That beacon straight ahead comes from the lighthouse on Entry Island" he said, and we gazed over his outstretched arm to a light in the distance.

Brighter and brighter grew a glow in the east till the silver stars paled before the breaking day. Nearer and nearer came that beckoning light, and a misty shape in the horizon changed into a beetling cliff five hundred feet in height surmounted by a small lighthouse. Then scores of small boats were passed, following one after the other to the eastward like a flock of sheep.

"Those are the fishermen going after mackerel," said our friend. "They always start before daybreak."

Presently we sailed so close to the shore of this Entry Island that a clump of white houses became plainly visible. Then our vessel turned and headed across a fine sheet of water, the Pleasant Bay, towards another island, and more white houses, trailing in the direction of the slope of a cone-shaped hill which sheered downward on the water side in front of us for four or five hundred feet.

"That is Amherst on Amherst Island," said the priest.

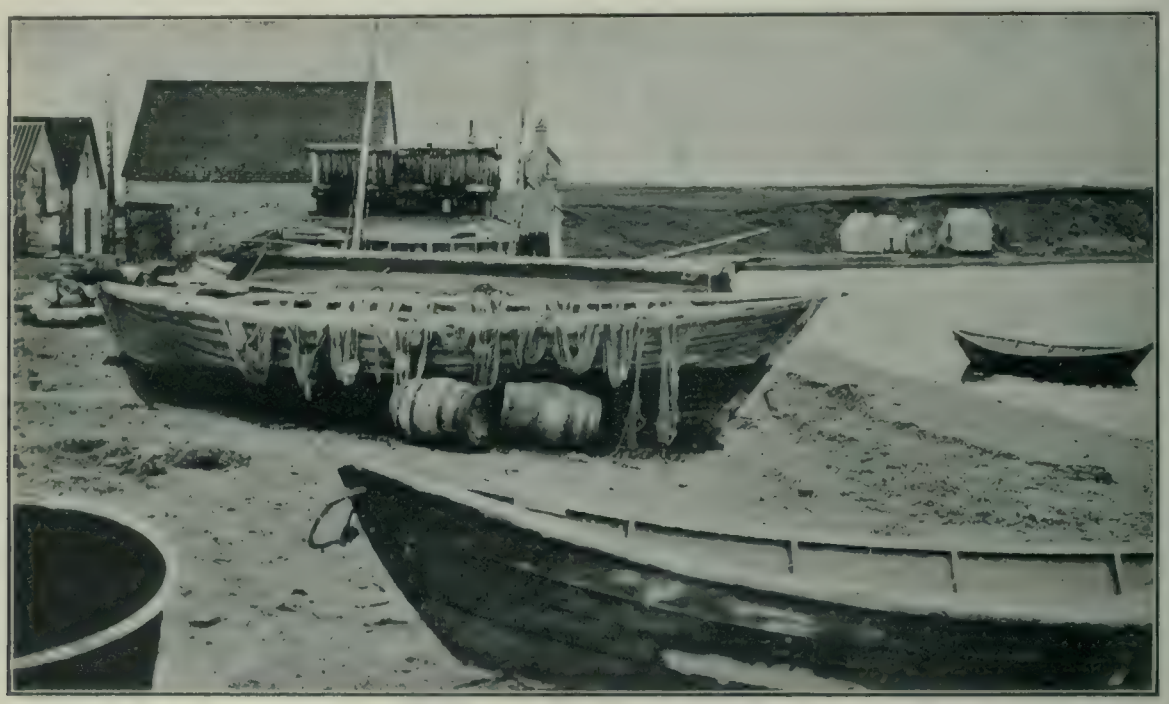
The whistle on our steamer gave a long pent-up shriek, a few commands were hurled out in French, and our vessel landed at a breakwater to a noisy welcome from a motley crowd of Magdalen men, women and children who swarmed the decks. And it was only half-past five!

Then gathering up our luggage, our friend led us ashore and lodged us in one of the white cottages we had just seen, where we were to remain with many comforts during our sojourn on this particular island.

Amherst, for a village, was certainly a strange place. There was no graded street, no attempt of a walk of any kind, nor the semblance of a street line.

A spit of sand connected a headland with the main portion of the island, and along its length of rude structures lay huddled together in a haphazard fashion, the last building to be erected evidently occupying a position which up to that time had been missed.

Peculiar sorts of structures were much in evidence. These were rows, of whitewashed buildings rising on stilt-like piling, two stories in height, the upper room being reached by steep steps running up on the outside, and inside of which room could be seen women engaged at household duties. The sandy spit showed life, for other women and young girls kept crossing it, carrying out barrow after barrow of fish from storehouses, and spreading them out on weather-beaten flakes to dry in the sun. An English sign over a doorway persuaded us to enter a building. It was a general shop where merchandize of all kinds was sold, with sandy floor, and rubber boots, oilskins, and other articles pertaining to the sea hanging from the rafters.



Amherst Shore Line. Note the Seal Vat.

A man came forward wearing a gold-braided cap and a blue uniform emblazoned with brass buttons.

"I am collector of customs," he introduced himself. "And just waiting for the shopkeeper to return. I am about to go up among the different islands on the government boat to watch out for evasions of the lobster laws. Those little, stilt-like huts which you notice all about the village we call the petits magazins. The fishermen come down from their homes during the fishing season and live there. In the lower room they stow the fish caught, the accessories of their boats, their salt and curing apparatus. In the upper room they lodge and eat."

Further explorations in this strange community showed that almost everywhere appeared the signs and evidence of a fishing life.

Big, ill-smelling, vats rose on one side of the trail in which the oil and pelts of seals were confined. Over the sands, back of the houses stretched yellow nets to

dry in the sun. Cows and chickens and geese roamed around the village at will.

While we were talking to the customs man a woman drove a stocky horse harnessed to a two-wheeled cart down the road, and halted by the stern of a beached yawl. She slipped off the bridle and hitched the horse to the rudder post, then threw some hay into the boat and went inside of the shop. The horse ate his dinner unconcernedly from the improvised manger. And so it was wherever we went. Everything was most primitive, with customs so indigenous that it was easy to understand the words of the priest, when he said, that the Magdalen natives exist in a world by themselves. And the reason for it is undoubtedly due to the isolation of their island homes.

During the summer months the little mail steamer connects the archipelago with the mainland. Reaching one island the boat lands the mail bags, the freight, and such few passengers as may wish to go ashore, then continues its trip to other islands, stopping again at the same points on the way home. In the long winters when the ice piles up high on the broad reaches of sand, and the storms from the northwest bring wind and snow, the little steamer is discontinued, and all communication with the mainland is at an end except through the telegraph, till the warm weather comes once more. And under such circumscribed circumstances the natives are by necessity compelled to take things as they come and make the best of them day after day, and year after year.

The first task in the spring is to go out after the herring and the cod. During this season these bait fish run up in large schools in the bays surrounding the islands, and the codfish gather on the ledges off the numerous lofty cliffs. And it is at this time, therefore, that the fisherman and his wife collect together a few household goods, load them on a clumsy, two-wheeled cart and move down to the petits magazins to live during the fishing season. That is if their little home is too far from the fishing grounds for convenient access to every day. By this arrangement the fisherman can go out in his boat and return at night in time for his hot meal and a warm bed.

And in this matter of herring few persons outside of those directly interested realize the importance of this particular Magdalen fishery. For years not only Canadian vessels, but schooners from the States, have resorted to these islands to participate in them, and being bait fish, and always in demand, it can be depended upon that the wide-awake Magdalener is going to lay in a large supply himself. He will need them later on, or perhaps sell them.

The spring mackerel and the lobsters follow the herring and cod in quick succession and the ensueing weeks are busy ones indeed for the fishermen.

In the latter part of April the lobster factories are opened up, and from then till the season closes, about the middle of July, men and women in shabby old clothing are kept busy each one at the allotted task of boiling and extracting the meat from the shell, and packing the bright filled cans into boxes for shipment.

A Magdalen Island Home.

A lull in activities follows, for the fall mackerel, the fat fish which bring the highest price, do not become plentiful until the arrival of the month of August. But from then until the season closes, the fisherman has all he can do in securing his proper share, and in curing them.

Time was when sealing was an important industry in the Magdalens, and thousands of these animals could be secured in one season's work, and men made quick money for their labor. Of late years, however, seals have diminished both in numbers and value.

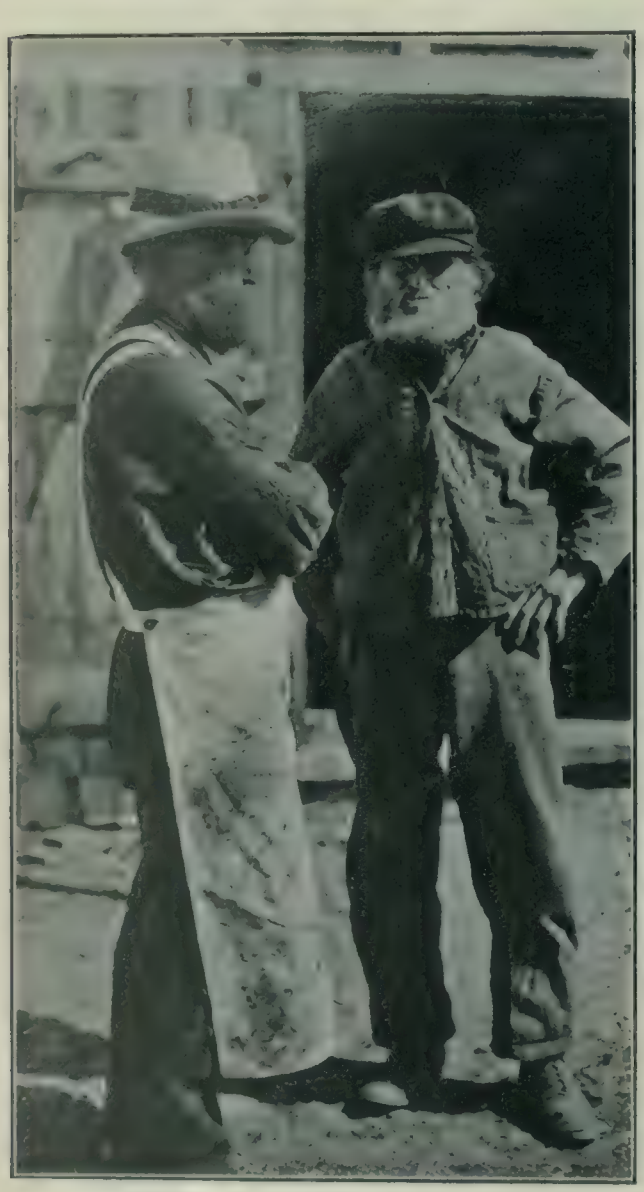
There are two distinct kinds caught off the Magdalens, known as the "harps" and as the "hoods."

The harps come from the region of Hudson Bay, while the hoods migrate from the coast of Greenland.

At the commencement of winter these animals descend in enormous herds and meeting off the coast of Labrador and Anticosti mount the ice about the end

of February and continue south in two immense columns; the hoods on the outside, and the harps on the inside. And it is at this time that their young are born.

Armed with clubs and knives, and dragging small boats called flats for service on the glades of water, many Magdalen men and boys make it their business every year to set out for a hunt on the ice. Clubbing an unfortunate animal over the head, and cutting its throat, the pelt and blubber are flayed, then tied into bundles and dragged ashore and deposited in the



Magdalen Island Types.

huge vats already described. The hot sun later in the season melts the blubber, and the oil is then drained off into barrels, and shipped to market. The pelts are sold for manufacture into pocket books, wallets and other leather articles.

The dangers incidental to these seal hunts are many. The ice may break at any moment, and the deep snow hide pitfalls, contingencies which may mean a drowning. Then there is the imminent fear that a severe storm may come up and drive the hunter far out in the Gulf to perish. The history of the Magdalens is full of grim tragedies ensuing from these hunts, and scarce a sealing season goes by without its loss of life.

Another pastime, for the opportunity to carry it on does not come often enough to warrant calling it a pursuit, is the hunt for the stray whales which occasionally become entrapped in the bays of the archipelago. And when such an event does happen, there is always intense excitement among the natives.

Toggle irons, lances, and knives are hurriedly brought forth from some hiding place, and there is a rush to go out and kill the ensnared mammal. If the hunt is successful, the carcass is hauled to shore, and the blubber is cut off, loaded into carts and wheeled down to some vat where it is deposited with the seal blubber. The spoils in this case are divided among the men taking part in the capture in the manner of a lay, each one participating in the chase receiving a proportionate share for his labor.

As in other places, so here at the Magdalens, the invention of the internal combustion engine has modernized the fishing industry, so that the power boat to-day is fast superseding the old-fashioned whale boat which for years has been in general use by the natives for their shore fisheries.

Natives of the Magdalens say that the dangers of the sea have been lessened to a great extent by these improved methods, and hardly ever is a life lost now, except through a man's own carelessness. It all happens because with this new power of propulsion they are pretty nearly able to calculate to a certainty whether it is safe to venture out to sea. If they have made a mistake it can be rectified immediately. The power boat is turned homeward, and the little engine hurries it to shore, where the men can wait till the storm abates.

FISH MEAL.

A subject of some importance to Canadian fishing companies is the manufacture of fish meal as a food for stock. During the past five years the manufacture of this meal from surplus fish and offal has been taken up in England, chiefly at the fishing ports, but the bulk of the output has been exported to continental countries where its value appears to have been more appreciated than in England.

Fish meal, however, is now being more generally appreciated by farmers, stock-breeders and poultry keepers in the United Kingdom. The Board of Agriculture strongly recommends its use. Experiments carried out at the agricultural colleges indicates its high value, when intelligently used, for breeding stock and producing eggs. One series of experiments, conducted over a period of four months, yielded an increased profit of 94 per cent on pigs fed on a mixture containing fish meal compared with others not so fed. Its richness in readily digestible protein (60 per cent and over) renders it especially suitable for combination with foods relatively poor in this ingredient, such as hay, straw, roots, potatoes and the starchy cereal grains and offals. It also contains phosphate of lime and a small proportion of salt, so necessary in the feeding of farm animals.

As regards poultry, in nearly all the large egg-laying competitions the first prizes have been obtained by fowls which have received a proportion of fish meal in their whole diet; the large percentage of albumen in the meal furnishes proof of its high value for egg laying.

WAR AND THE BRITISH FISH TRADE

By COLIN McKAY.

(of St. John, N.B., writing from London, Eng.)

With the Board of Trade advising the British people to restrict their consumption of meat in order to economize the national supplies, and the Federation of London Fish-Mongers requesting the Government to take measures to assist them in increasing the supplies of fish, the food problem in these islands begins to present features which may very well command the attention of the people of Canada. The situation is not at all serious, but the outlook for the future is not at all bright. The British people refuse to be hurried or worried; they will no doubt find a way to deal satisfactorily with the situation if it should become critical. They have begun to take the war seriously, and they are perceiving too, that the food problem will have to be taken more seriously. If this war is prolonged for two years or more, as many people now expect, the problem of assuring the food supples of the civil population may call for measures of an heroic character, and Canadian fishing interests may very well give consideration to what they may do to help in the matter.

In the first nine months of the war the supplies of fish landed in these islands showed a shrinkage of 8,000,000 cwts., compared with the corresponding months of the previous year. In April of this year the fish landed in the United Kingdom was 27,818 tons less than in April, 1914. Of course, the United Kingdom is not now exporting large quantities of fish to Germany, Russia and other countries, but the shrinkage of supplies is much too great, to be offset by the decline of the export trade, more especially, as scarcity and high prices of meats has increased the demand for fish. The inability of the fish industry to meet the demand is shown by the fact that fish markets in many places have limited the days and hours of business.

In the circumstances the fish dealers might have raised prices considerably. At the present time in London fish is scarce and comparatively dear. None the less, the trade has shown no disposition to take undue advantage of the situation, but has behaved sensibly, and patriotically. No one can say it has been exorbitant in its demands.

Of course, the reasons for the present situation are pretty well known, even in Canada. The Admiralty has closed certain important fishing grounds, and prohibited night fishing on other grounds. Then the Admiralty has requisitioned over 1,000 first-class steam trawlers, fishing out of 14 ports, and also enlisted thousands of fishermen for mine-sweeping operations and patrol duty—to say nothing of the fishermen who have joined the navy and the army. Again scores of peaceful trawlers have been sunk by submarines or mines; in the week of the Lusitania outrage, submarines sank 27 British trawlers.

True, the fishing fleet of these islands is very large; at the close of last year the number of trawlers registered was over 27,000. Still, a thousand of the biggest trawlers cannot be commandeered without serious consequences to the fishing industry. Again if we may judge from the reports the proportion of fishermen who have joined the colors is very large. Considering the depletion of the fleet, the enlistment of fishermen, and the closing of fishing grounds, the wonder is that so much fish has been landed, and that the dealers have been able to keep prices at so reasonable a level.

One of the encouraging features of the situation is the splendid way big fishing concerns have risen to the occasion. Debarred from certain grounds in the North Sea, or obliged to restrict operations there, they have set about with great energy increasing operations on the west coast. Much attention is being given to the development of the fisheries on the west coast of Scotland from the Hebrides to the North coast of Ireland, in the Bristol Channel, and the waters south of Ireland. And evidently a considerable fleet will be sent to Iceland to fish for herring.

Another means of improving the situation will no doubt be found by making greater use of refrigeration. The British fish industry, while it uses great quantities of ice, has hitherto made little use of refrigerating plants. Great Britain, with its prolific and easily accessible fishing grounds has always been in the exceptionally favorable position of being able to readily secure immense supplies of fresh fish. That being so, with the supplies of fresh fish ample and regular, the industry has shown little inclination to make any extended use of cold storage, while on the other side the consumer has shown little or no appreciation of frozen fish, while fresh fish, merely chilled by ice, has been obtainable.

But now conditions have changed, as have many other circumstances, as a result of the war. New methods will have to be tried. Recently fairly large quantities of kippers have been placed in cold storage with success; as much as one shilling per box profit being made in some instances. Kippers come out better when frozen than when chilled. Cured haddock, too, are said to be improved by cold storage, but the fish sweat after being exposed to the air, which affects their sale. Under normal conditions refrigerated fish cannot compete with freshly landed supplies, but the times are no longer normal. Last year several shipments of "glazed" halibut from British Columbia were sent to this country; as far as I can gather they sold at prices nearly 50 per cent below those current for halibut from British waters. But with greatly reduced supplies of fresh fish it may be possible to realize prices for frozen fish from Canada within 75 per cent at least of the average for fresh fish, if marketed in good condition.

Probably it is doubtful whether Canada can develop any important or profitable frozen fresh fish business with Great Britain, as the business is carried on in Canada. While the war lasts, steamship space will probably be scarce, and freight rates high. Another consideration is whether it would be better to send frozen for chilled fish; chilling is the more expensive method, and at the same time, the most satisfactory from the English consumer's point of view. Still, it may be well to remember that last Christmas, when England was unable to get turkeys from Central Europe and the Balkans, Canada sent over consignments of fine birds which arrived in good condition, and found a ready market at good prices. And it would also be well for the Canadian fishing interests to bear in mind that the outlook for any considerable increase in the local supplies of fish here is rather poor, and that with diminished supplies of fresh fish, and high prices for meat, Great Britain should offer a good market for various kinds of Canadian cured fish. So far, the Nor-

wegian catch has been below the average, and Germany will doubtless make a strong bid for Scandinavian supplies. But they should not expect phenomenal prices; that would be unpatriotic. If a real need arises, Britain will look to Canada for a supply of fish at reasonable prices, as a contribution to Empire defence.

The Fish Trades Gazette, of London says:—

"The various branches of the trade should hang together and sell fish as cheaply as possible. They should take the long view, and it may be that their present difficulties may prove a blessing in disguise. Now or never is the time for the missionaries of fish as food to seek the conversion of the British public. The words may fall on idle ears, but they may sink in none the less. It may well be, though we admit the wish is father to the thought, that many persons will become convinced for the first time that fish is not merely a satisfying substitute for meat, but also more wholesome, for a fish diet is proverbially good for the brain. So perhaps when the war is over there may be a better demand for fish than in the past. The war has caused a tremendous consumption of chocolate and sugar confectionery among those who never ate either since they were children. Why should not the fish profit too?

"We hope that Lord Selborne, the new President of the Board of Agriculture and Fisheries, and his old colleague now at the Admiralty, Mr. Balfour, will do their best to help the fishing industry to seize the opportunity which now offers. Catches cannot fail to be small and prices high so long as the war lasts, but it is possible to help and not to hinder the trade, as no doubt the deputation from the Fishmongers' Company's Conference was able to show."

WHO'S WHO IN THE FISHING WORLD

It may not be generally known that the distinction of being the largest lobster exporting firm in the world belongs to Roberts, Simpson and Company of Halifax, Nova Scotia. In recent years this firm had handled fully one-third of the world's output of canned lobster.

The firm was founded at Halifax in 1880 by Frank Roberts, a native of New Brunswick and William Muirhead Simpson of Liverpool, England. A branch of the business was at the same time established in the latter city in the charge of Mr. Simpson and a general export and import business was begun between the two houses.

From the beginning the firm of Roberts, Simpson and Company was an important buyer and exporter of canned lobsters and before many years had passed it became the largest handler of this class of foodstuffs. The firm has branches now at Yarmouth, Nova Scotia; Charlottetown, Prince Edward Island; Shediac, New Brunswick; St. Johns, Newfoundland; and Vancouver, British Columbia, besides controlling or having an interest in several large packing concerns. Other canned goods, notably salmon, fruits and meats form part of the business developed between the Canadian and British houses. Upon the retirement of Mr. W. M. Simpson in 1907 Mr. Roberts removed to Liverpool and since then the management of the Canadian house and branches has been in the capable hands of Mr. Richard Hugh Williams of Halifax.

Mr. Williams entered the employ of Roberts, Simpson and Company at Liverpool in 1887 and was transferred to the Halifax Branch in 1891. His attention since then has been almost entirely centered on the lobster business of the firm, which now comprises the buying, shipping and selling of live lobsters, the packing of the preserved lobsters and the exporting of the canned product to all parts of the world, together with the importation and manufacture of the various packing materials required in this branch of the business.

Mr. Williams was born of Welsh parents in Liverpool forty-five years ago. He was educated at the public schools and at Liverpool College, England. He is a Presbyterian in religion and a Conservative in politics.

He is an authority on the lobster industry, having studied the best methods used wherever the trade is pursued not only in America but also throughout Europe. He has made a life long study of the toothsome crustacean itself, the process of canning adopted by the most progressing houses, the manifold government regulations in force in different countries and methods of enforcement, the conservation of future lobster supplies, the education of fishermen, packers and shippers to the requirements of the trade, the utilization of waste as by-products, and the ever changing conditions that seem to be peculiar to the lobster trade. Every phase of the industry has come under his minute observation.

Mr. Williams is a valued member of the executive committee of the Nova Scotia Fisheries Association and of the Fisheries Committee of the Halifax Board

of Trade. He is also an active member of the Rotary Club and a firm believer in the principles of that excellent organization. "I believe I am the only lobster-packing Rotarion so far known", he said with a smile.

He is not by any means pessimistic respecting the immediate future of the lobster industry. People must eat and must have a mixed diet, and even the greatest war in history has not affected the appetite of mankind. "The war," he said, "has not materially affected the demand for our products in our principal European markets although, of course, some important markets are now accesible. More lobsters are being caught off the coast this year than in the average year, and we are making heavy shipments just now to Boston and New York. At the present time the prices for the canned product rule about six dollars a case lower than in the seasons immediately previous to the outbreak of the war."

Mr. Williams has the good will of every business man in Halifax. His name is recognized as a synonym of integrity. He has not lost the reserve that characterizes many of the British born but beneath that fine restraint lies the capacity for steady application to work which has built up the fortunes of his firm.

RESTORING OYSTER BEDS.

Efforts are being made to restore the oyster beds of the Maritime Provinces to their former productiveness. A company at Shemogue has planted twenty-two acres of oysters and fifteen acres of clutch at a cost of over $10,000. A dredge, 60 feet long, which will cost $6,000, is also being built by this company. The value of the oyster output in New Brunswick in 1913 was $55,434.

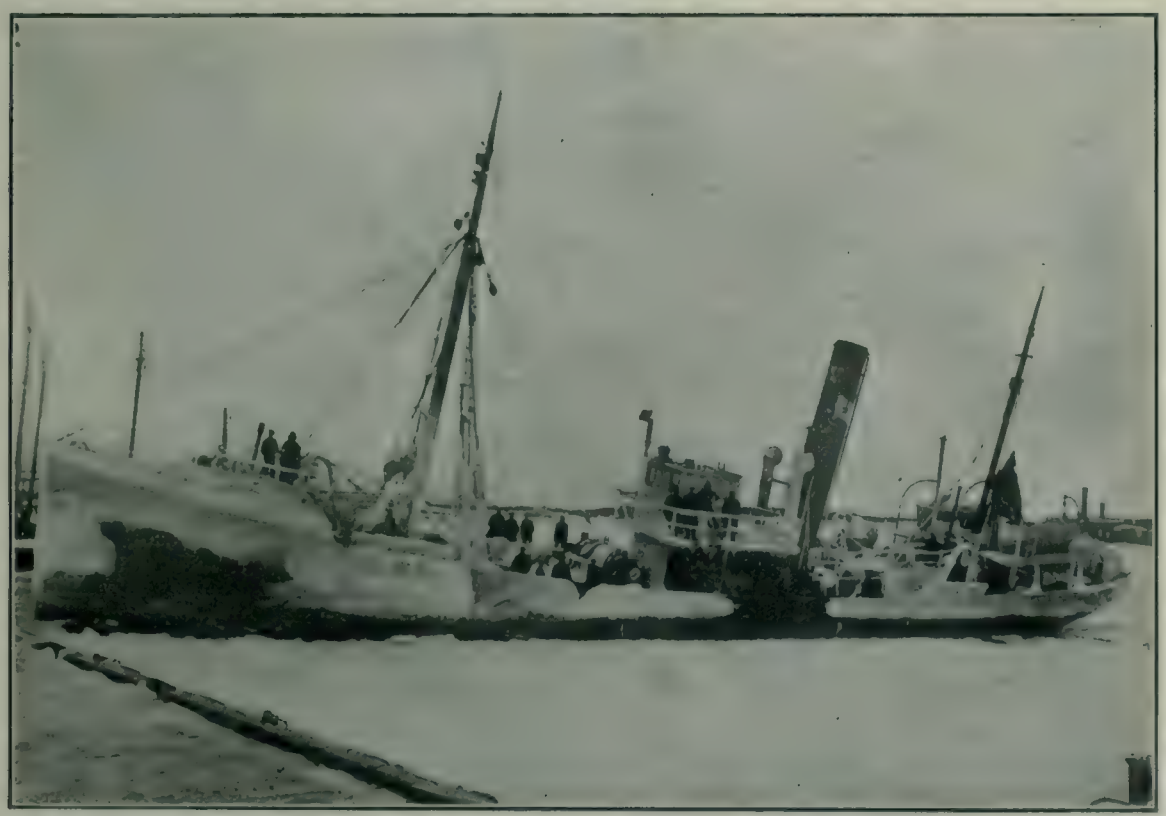
GREENLAND SALMON FISHERIES.

For about two years an inquiry has been going on in Greenland as to how the salmon fishery in the fjords and rivers might best be utilised and developed. In 1913 it was decided to erect a canning factory at graedefjord, in Godthaab district, in South Greenland, and though the season was nearly over, some three thousand cans of salmon were put up. Last year the factory was working the whole season, and the output amounted to 23,000 cans, each of half a kiloraamme (a little over 1 lb.). The quality is said by experts to be excellent, and there is a satisfactory demand for the product. But it is unlikely that, at least for a long time to come, the output will be very large. The season is short—the salmon ascend the rivers towards the end of June and return to the sea in August—and the rivers are at some distance apart. Nevertheless the venture has been so successful that it is proposed to erect several other canning factories—Fishing News.

FISHERMEN OF WESTPORT MAKE GOOD CATCHES.

Captain Edgar McDormand, of Westport, N.S., while fishing near the northwest ledge, lying about three miles off Brier Island for pollock suddenly found that the small line was being taken from him by some very large fish. After playing for nearly fifteen minutes he landed in his boat an enormous codfish, which tipped the scale at eighty pounds.

One party caught between 75 and 100 quintals of pollock. Other seines have been ordered ,and it is hoped that in the near future these fish may be taken in large quantities without having to depend upon getting bait for such purposes.



A good Picture for these Summer Days! Steam Trawler Rayondor Iced Up at Canso Last Winter.

Wholesale Fish Prices, Montreal Markets

Demand is active for all kinds of fresh fish and dull for preserved and pickled fish.

Fresh Gaspe Salmon has been arriving in large quantities this week, and prices have established a low level record, being sold in some instances at 8c per lb.

In the lines of Lobsters, Brook Trout, Scallops, and all the luxuries, the demand is quiet, and prices easy.

Fresh halibut has maintained and is even increasing in favor, and for this reason, though supplies are equal to demand, prices have rather a tendency to stiffen.

Reports that Codfishing is good and demand being limited, has sent Dried and Salted Cod to very low prices. A few arrivals has been sold at $6.00 a barrel for salted, in barrels, and $5.50 a bundle of 100 lbs. for the Dried.

It may be said in general that all varieties of fish at popular prices are in favor when the high priced species are unusually quiet.

Smoked Fish.

Haddies, 15 lb. boxes, new ..per lb.	$ .07½
Haddies, 30 lb. boxes ..per lb.	.07½
Haddies, Fillets ..per lb.	.10
Haddies, boneless, 15 and 30 lb. boxes.. ..	.08½
Yar. Bloaters, 60 in box, Selected.	1.25
St. John's Bloaters, 100 in a box	1.00
Kippered Herrings—Selected	1.40
Kippered Herrings—Other brands	1.25
Smoked Herrings—large size, per box	.18
Smoked Herrings—medium, per box..	.20
Smoked Boneless Herrings, 10 lb. box	1.40
Ciscoe Herrings, a basket 15 lbs...	1.50
Smoked Eels	.12

Fresh Fish.

Halibut ..per lb.	.11	.12
Haddock ..per lb.	.04½	.05
Market Codfish.. .. ..per lb.	.04	.04½
Steak Codfish.. .. ..per lb.	.05½	.06
Carp ..per lb.		.06
Perch ..per lb.		.05
Lobsters, live ..per lb.		.20
Lobsters, boiled ..per lb.		.20
Dore.. ..per lb.		.11
Pike ..per lb.		.07
Perch.. ..per lb.		.05
Gaspereaux ..each		..02
Eastern Salmon ..per lb.		.15
Western Salmon ..per lb.		.15
Shad Roe ..each		.30
Shad Buck ..each		.20
Lake Trout ..per lb.		.11
Whitefish ..per lb.		.11
Blue Fish ..per lb.	.10	.16
Lake Trout.. ..per lb.	.10	.11
Brook Trout ..per lb.		.24
Eels ..per lb.	.10	.10

Frozen Fish.

Salmon—Gaspe, large ..per lb.	.11	.12
Salmon—Red, Steel Heads ..per lb.	.10	.11
Salmon—Red, Sockeyes ..per lb.	.09	.10
Salmon—Red, Cohoes or Silvers, per lb.	.08	.08½
Halibut large and medium ..per lb.	.09	.09½
Salmon Pale Qualla, dressed...per lb.	.07	.07½
Halibut large and medium ..par lb.	.09	09½
Mackerel, Bloater..per lb.	.07½	.08
Herrings, medium, 50 lb. per 100 count		2.50
Haddock, medium and large...per lb.	.04	.04¼
Market Codfish. ..per lb.	.03½	.04
Pollock ..per lb.	.03	.03½
Tommy Cods ..per lb.		
Smelts, extras 10, 20, 25 ..per lb.		
Smelts, medium to large ..per lb.		.10
Smelts, small ..per lb.		.06
Canadian Soles ..per lb.		.07
Blue fish..per lb.	.15	.16
Striped Sea Bass, large..per lb.	.14	.15
Sea Trout ..per lb.	.10	.10½
White fish, large ..per lb.	.08½	.09
White fish, small Tulibees ..per lb.	.06	.06½
Lake Trout, large and medium per lb.	.08½	.09
Dore, dressed or round ..per lb.	.07	.07½
Eels ..per lb.		.09
Pike, round..per lb.	.05½	.06
Eels ..per lb.		.10
Shad, 3 lbs. each..		.08
Frogs, 10 lbs. tins		.20

Pickled Fish.

Salmon, Labrador, Tierces, 300 lb..	20.00
Salmon, Labrador, Brls., 200 lb.	13.50
Salmon, B.C., brls..	12.50
Sea Trout, brls.	12.00
Sea Trout, half brls., halves..	6.50
Mackerel, N.S., Brls. 200 lb.	12.00
Mackerel, N.S.,Hf. Brls. 100 lb..	6.50
Mackerel, N.S., Pails, 20 lb.	1.50
Herrings, Labrador, Brls...	6.00
Herrings, Nova Scotia, Brls.	6.00
Herrings, Nova Scotia, Half Brls.	3.50
Lake Trout, Half Brls.	6.00
Quebec Sardines, Brls.	6.00
Turbot, brls.	14.00
Herrings, imported, Hf. Brls.	8.00
Herrings, imported, kegs, each	1.00

Salt Dried & Prepared Fish.

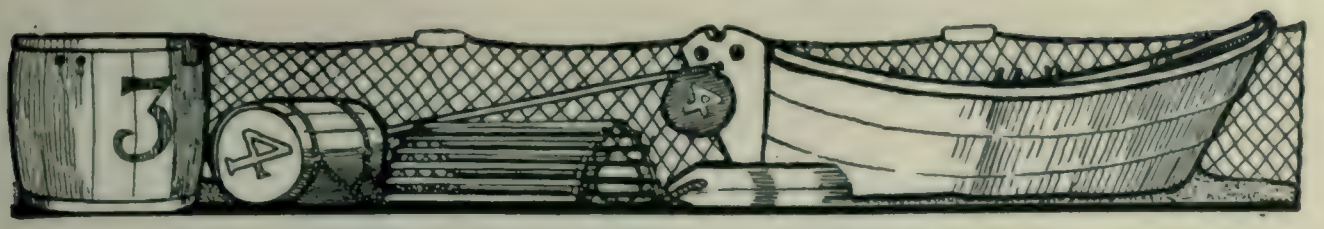
No. 1 Green Cod, large, per barrel	7.00
No. 1 Green Cod, Medium, Brl.	6.00
No. 1 Green Cod, small, Brl.	5.00
No. 1 Green Cod, Haddock, medium, Brl. ..	5.00
No. 1 Green Cod, Pollock, medium, Brl. ..	5.00
No. 1 Green Cod, Hake, medium, Brl.	5.00
Quebec Eels, large, per lb..	.07
Dried Codfish, med. & small 100 lb. bundle ..	7.00
Dried Hake, medium & large 100 lb. bundles	6.00
Dried Pollock, medium & large 100 lb. bund.	6.00
Dressed or skinless codfish, 100 lbs. case ..	7.00
Boneless Codfish, 2 lb. blocks, 20 lb. boxes	.08
Boneless Codfish, strips 30 lb. boxes	.11
Shredded Codfish, 12 lb. boxes, 24 cartons, ½ lb. each, a box	1.75

Bulk Oysters, Clams, Etc.

Best Standards, imp. gallon	1.50
Solid meats, imp. gallon	1.80
Best clams, imp. gallon	1.50
Best Shrimps, imp. gallon	2.25
Best Scollops, imp. gallon	1.75
Sealed best standards, quart cans, each	.35
Sealed best selects, quart cans, each	.45

Oysters, Clams, Mussels and Shell Fish, Crustaceans,

Best Scollops, imp. gallon	2.00
Cape Cod shell oysters, per barrel	11.00
Malpeque shell oysters, selected, C.C.I., brl.	9.00
Malpeque shell oysters, selected, J.A.P., brl.	8.00
Clams, per barrel	6.00
Mussels, per barrel	5.00
Winkles, per bus.	3.00



THE ATLANTIC FISHERIES

CANSO, N.S.

(Special Correspondence.)

By the time these items are printed and reach the readers of the "Canadian Fisherman," the lobster-fishing season on this section will be nearing its close. In spite of many gloomy predictions, during the fall and winter, the result of the season's work has been unusually good. With the breaking out of the Great War last August, an extremely pessimistic tone prevailed among the spokesmen of the industry, as all will remember. For some time, such an extreme measure as the legal closing-down of the industry for the following year was advocated by some as the only remedy for the situation. That plan fell through, however, and as the months went by, the outlook began to brighten and kept on doing so, though almost up to the opening considerable fear of results was apparent. Influenced by this, most fishermen did not fit-up on quite as large a scale as in former years. Whereas, usually a large number of new pots would be made, this year they contented themselves with fixing-up more old gear and making fewer new traps. For this reason, the factory bill and other expenses were smaller than usual, and helped with other favorable factors, to increase the profits. The price started almost as high as last year, and soon went up, markets reaching the nice figure of thirteen cents. Lobsters were fairly plentiful and good catches were made earlier than usual in the season, on account of fair weather, and the proportion of large fish was notable. The only big storm, a heavy E. and NE. gale fortunately did not do nearly as much damage as was expected. Portland Packing Co., Matthews and Scott, and other canners of former years have been packing as usual, and Mr. A. Fader has been buying markets on a large scale. The result of the season's operations shows how far astray even the best-informed prophets may sometimes be found.

The Lobster Hatchery is in full swing. Patrol Boat C., Capt. De Young, took the place of the Government steamer "Thirty-three" in gathering spawn up to the latter part of May, and since then Mr. John Berrigan of Canso, in his sail-and-motor boat.

Two patrol boats for use in the Fisheries Service, and just from the hands of the builders (the Port Hawkesbury firm of Embree) were in port here over Sunday, the 6th inst. They are tidy and able looking craft, each equipped with two spars and sails as well as a 36 h.p. gasoline engine, and cost, so your correspondent was informed, over $5,000 each. One is to go into service on the South Western coast of Nova Scotia, the other in New Brunswick. On board was Mr. J. F. Calder, a New Brunswick Fishery Inspector, and a very genial gentleman, whom the writer had the pleasure of meeting.

The trappers at White Point, with the exception of one small run, have so far had rather a disappointing spring.

CHARLOTTETOWN, P.E.I.

(Special Correspondence.)

From all round the island come reports of remarkable catches of lobsters. Many boats are landing 1,600 lbs a day, whilst in other years 500 per boat was considered a good average. In some sections, the factories have been unable to handle the fish, and the fishermen have been ordered not to overhaul their traps until the congestion is relieved. In some places, considerable quantities have been allowed to sour and to spoil.

The great cry from the packers is "Send us cans!" The local dealers, expecting a falling off in the demand on the supposition that the drop in price would oblige a number of factories to close down, did not make the usual preparations. Last year 50,000 cases of cans were made, or what was considered sufficient for an average annual pack, but this year, probably not two-thirds of that number were made, and when the lobsters struck in, in such numbers, there was a serious shortage of the indispensable can. There are very few of the half-pound and quarter-pound size, which are used almost exclusively, to be had in the Maritime Provinces, and the price has advanced about 25 per cent.

The heavy catch of fish at present, according to experienced packers and fishermen is due to the fact that the ice remained on shore about a month later than usual. This prevented the herring from coming in and spawning, and hence the lobster, which feeds on the spawn and the other fish attracted by the latter has been deprived of one source of food supply, and therefore come in hungry droves to the baited traps. In fact, they are wandering into traps, from which the bait has been removed, being attracted by the fishy odor.

This abnormal catch, at present, is regarded by some packers, as two months' fish being taken in one month, as the factories in the majority of places were a month late beginning operations. It is contended that there has been little variation in the quantity caught each season, for several years past, and that at the close of this season the pack will not be much greater than last year. That is only a surmise, however. If the present fine weather continues, the total output is expected to exceed all records.

There was a scarcity of bait, at the opening of the season, and some fishermen, were for the first time in many years using only part of a herring in a trap, but at present there is an ample supply.

In the western part of the province, the shipment of live lobsters, in ice, to Boston, has been started—a new enterprise in these parts.

The abnormal conditions of this year with the influx of lobsters over-taxing the facilities for handling them, are but a repetition of what obtained in 1909,

when the ice remained late around the coast, except that in that year, there was no scarcity of cans.

This year too, there is also a scarcity of help, as the packers did not foresee such a congestion of fish.

DIGBY, N.S.

(Special Correspondence.)

Schooner Loran B. Snow, which has been thoroughly repaired on the marine railway at Meteghan; arrived here on the King's birthday in tow of steamer Granville, which had also been on the blocks at that port for an overhauling, painting, etc. The Loran B. Snow is now being made ready for a fishing trip, and will sail in a few days in charge of Capt. Augustus Haycock, formerly of Westport, but who now resides in Digby.

The Dorothy G. Snow, Capt. Ansel Snow, arrived from the Banks on May 30th with the biggest trip of the season; 165,284 lbs. mixed fish, most of which were cusk, and the balance cod, pollock, halibut, etc. She sailed again for the fishing grounds on June 10th.

Schooner Grace Darling, Capt. Ansel Casey, landed on May 25th 87,378 lbs. mixed fish, mostly Cusk. She is at present on the fishing grounds and is expected daily with another good trip.

On June 1st the Lila Boutilier, Capt. Arthur Casey, landed a mixed trip of 147,000 lbs. She sailed from Digby on June 9th for the fishing grounds, and will fish for hake during the next few weeks.

The auxiliary schooner, Cora Gertie, is running again after having been tied up a short time owing to Capt. M. G. Crocker's severe illness during the past month. Capt. Crocker is now slowly improving in health, and in the meantime has arranged for the Cora Gertie to run fresh fish from Freeport and Tiverton to Digby for the Maritime Fish Corporation, Ltd. She landed 13,000 lbs. haddock on May 24th, and 8,680 lbs. on June 7th.

Schooner Exenie landed 4,196 lbs. mixed fish on June 8th.

Mr. Matthew Raymond of Rossway caught a 32-pound salmon in his nets at Gulliver's Cove Monday night, June 7th.

Large quantities of mackerel are reported in St. Mary's Bay.

The American schooner William Keene, Capt. Hathaway, arrived recently from Lubec to load a cargo of fish for Lord Bros., Portland, Me., which was shipped by the wholesale fish dealers of Digby.

The landings of cusk here this spring have been the largest in the history of the port, and the producers have been rushed to their capacity practically all the time, salting and drying these fish.

LUNENBURG, N. S.

(Special Correspondence).

The early spring catch of the Lunenberg fleet has by this time been entirely disposed of at fair prices, namely $6.50 for Codfish and $4.50 for Haddock. This catch, which amounted to about 20,000 qntls., was made up of fully two thirds of Haddock, which reduced the value of the gross stock of the producing vessels very materially. However the result is very gratifying to the crews of these vessels, as it gives them a sum of ready cash before they sail on what is known as the summer trip.

The vessels are now returning with the second spring catches, some of them however did not land the early catch, which will help swell the present landing. At the time of writing there are about fifteen of the fleet home with catches of from 500 to 1200 qntls. respectively. It is too early yet to make a correct estimate of the total landing, but from what we can hear we should put the average at from 700 to 800 qntls. per vessel. After fishing the early frozen baiting, so called, the fleet were unable to get to the Magdalen Islands for fresh bait for nearly three weeks on account of ice conditions. In the meantime many of them fished frozen gaspereaux, which came chiefly from St. John, N. B., and were delivered at Halifax and Canso. In this way they managed to gather a few hundred quintals of fish, which swelled out the catch for that voyage. After getting to the Magdalen Islands the catch of Herring proved to be almost a failure, thus making it slow work for the vessels to get bait and away promptly. A number of the vessels, which left under charter for the islands to procure Herring for the United States markets, have returned empty, thus showing the shortage of the Herring catch there. On the whole we think the results of the spring fishing will be fairly satisfactory to all concerned, that is if the present prices keep up.

One sad feature of the result of the spring's work was the loss of life, which was caused by the upsetting of dories on the fishing grounds,whereby some five men of the fleet lost their lives, which sad fact caused a feeling of sadness on the vessels, in which they sailed as well as the community in which they lived. We hope the trip for which they are now preparing will prove successful, both in safety to the lives of the men, also in catch and prices, but we must leave that to the decision of Him who doeth all things well.

YARMOUTH, N.S.

(Special Correspondence.)

Mackerel have been the attention of the fishermen, and the transportation companies during the past few weeks to the exclusion of almost everything else. The catches all along the Yarmouth and Shelburne County coasts have been phenomenal. Men who have been following the sea all their lives have told your correspondent that they never saw anything like this season has been for mackerel. This run reached its height on June 3, 4, and 5, and, as one of the officers of a government steamer which arrived in port on the 5th says, that from Petite Passage to Yarmouth the steamer had to literally plow her way through schools of mackerel. Along the shore many of the traps, particularly those at Roseway and Lockeport were so full that they sunk with the load, and in consequence were the means of entailing considerable loss on their owners. Many other traps were torn, allowing many of the fish to get away and in other cases it was found impossible to free the traps of fish. Unfortunately our Yarmouth traps were not able to share in this big clean-up. The gale of the week previous had put them out of business, and they were still underging repairs when the run was on. The cargo of mackerel which left here on the Prince George on June 5th, for Boston was the largest that had ever been taken out in one shipment. Away back in 1896 the next largest cargoes went out on the steamer Yarmouth; on May 26th of that year she had 2,056 barrels, and on the 29th 1,929 barrels, but there has been no shipment anywhere approaching that size since then. The fish in this year's big run were of splendid quality, ranging from 39 to 146 to a barrel. The run is not over by any means, and hundreds of barrels are still being taken all along

the coast, but on the three days referred to, they were being taken by the thousands. A correspondent from Woods Harbor, referring to it, says the waters of Lobster Bay swarmed with the fish and that the oldest inhabitant of that fishing village had never seen them in such quantities before. But for some unknown reason they did not come so close in shore as usual, and the traps there did not do much. The drifters reaped the benefit; David and Ira Abbott took the largest catch in one night for a boat—52 barrels. Quite a number of the boats stocked over $2,000 in two weeks—and that statement alone is sufficient to show in what quantities they were.

I was in hopes I would be able to secure a comparative statement of the lobster catch and pack for this year, and last in time for this issue, but the figures have not been made up yet. They will come later.

The schooners engaged on the off-shore grounds have had a good month, although dogfish have struck in to worry them somewhat. However, they are bringing in some pretty good fares, and are building up some good stocks.

Henry A. Amero has had his schooner Dawn thoroughly rebuilt at McGill's shipyard in Shelburne. Her name has been changed to the Louise E., and she is now to all intents and purposes a new vessel. She is now on the grounds on her first trip. He has also added another schooner to his fleet, namely the James R. Clark. This was one of the American vessels which have been in Yarmouth for some years, and belonged to the estate of the late Oliver Kilham, of Beverley, Mass. There were four of them, and they were all sold out of the town over a year ago. The Clark was first purchased by Clark's Harbor parties, but before she went into commission was re-sold to Capt. LeBlanc, in Wedgeport, who fished her all last season. He has now sold to Amero and she will in the future fish out of this port.

By the way, one of Amero's cargoes is now up against a proposition with the American Government. He shipped a cargo of 100,000 pounds of salt cod and 150,000 pounds of salt cusk to Cunningham & Thompson, of Gloucester. This cargo was the first to arrive in that port since the question arose if such cargoes were to be considered "boned" and therefore liable to a duty of three-quarters of a cent per pound. The discharge of this cargo was not held up until the question was decided by the Treasury Department at Washington, but was admitted "temporarily free of duty." The consignees had to give a bond of double the amount of duty that would be levied, should the officials at Washington rule that the fish is "boned," and therefore dutiable.

The exports for the month have been: Live lobsters, 2,469 crates; boneless cod, 1,120 boxes; fresh salmon, 225 boxes, pickled fish, 182 cases; periwinkles, 3 barrels; canned lobster, 76 cases, fresh halibut, 102 cases; eels, 12 barrels, fish waste, 99 barrels; salt herring, 291 barrels; fresh cod, 4 cases, boneless fish, 562 boxes; fresh shad, 8 barrels; fish scrap, 12 barrels; fresh mackerel, 4,388 barrels; salt fish, 640 drums; glue stock, 5 barrels; dry salt cod, 257 drums; salt tongues, 2 barrels; fish clippings, 5 barrels; cod oil, 2 barrels; dry salt haddock, 30 drums; to France, 300 cases canned lobster; to England, 1,227 do.; to Porto Rico, 50 drums dry salt fish, 50 tierces, do.; to Cuba, 480 drums, do.; to Jamaica, 50 barrels salt herring; to Norway, 50 cases canned lobster.

THE NEWFOUNDLAND SEAL FISHERY

By P. W. BROWNE.

(Author of "Where the Fishers Go: The Story of Labrador.")

The seal is a marine carnivorous mammal, of the order "ferae," sub-order "pinnipedia," family "phocidae" or "otariidae." Nearly every zone has its variety of seal, though, as a rule, all seals are maritime and extra-tropical, and they are especially numerous in high latitudes of the northern hemisphere.

Pelagic seals, which furnish the soft, lustrous, silky fur, are found in southern waters, from Japan and the islands of the South Pacific to the mouth of Rio de la Plata, and from the Cape of Good Hope to Australia and the Kerguelen Islands, in the Indian Ocean. They are also found in Behring Straits, notably on the Pribiloff Islands. These seals are hunted chiefly for the value of their furry skins.

Hair Seals or "ice-mounting pennipeds," have their habitat in the North Atlantic and Arctic waters. They are hunted chiefly for the oil which they yield; and the pelts are a secondary consideration.

The Hair Seal fishery is one of the piscatorial assets of Newfoundland but it is not, as is generally assumed, the exclusive preserve of the Ancient Colony, as the Dutch hunt the hair seal around Jan Mayen Island, off the east coast of Greenland.

There are several varities of the Hair Seal, each having a specific value: The Common, or Harbor Seal ("phoca vitulina") is found at many points between Cape Hatteras and Labrador. It ascends the rivers in spring-time, and has been found far up in the lakes of the interior. This is the variety which one sees in aquaria; it is easily tamed for exhibition purposes. It has little commercial value.

The Hood Seal ("cystophora cristata") so-called from a cowl-shaped sack on its head, is found off the Newfoundland and Labrador Coasts, and in the Gulf of St. Lawrence. In prime condition it weighs about 90 pounds, and ranks next in value to the Harp.

The Harp Seal, or "Saddle-back" ("phoca groenlandica), the most valuable of ice-mounting pinnipeds, is found in the same regions as the Hood. It derives its name from two rows of dark spots on the back which have a conformative resemblance to a Harp (at least, this is the accepted origin of the designation.) The Harp is the most widely-distributed mammal in northern waters.

The Square Flipper ("egnanthus barbatus") is the largest known variety of hair-seal. It is rarely seen around the Newfoundland coast; but it is met with occasionally on the coast of Labrador. The young of this variety weigh approximately 200 pounds; and the old turn the scales at 600.

The seal fishery was unknown to the early West-country adventurers who frequented the "cod-meadows" of Newfoundland; and there is no mention of sealing, as an English fishery, prior to the Treaty of Utrecht (1713). But anterior to this, the French carried on a seal fishery in the Gulf of St. Lawrence, having, presumably, learned the art from the Montagnais Indians, who from time immemorial hunted seals at

Natashquan ("the place where seals abound").

The first sealing ventures of Newfoundland fishermen date from the second quarter of the 18th century; and in 1740, the value of seal oil (exported) was set down at £1,000 sterling. In 1773, the value of seal products was £26,388.

As conducted in early days, the seal fishery was known as "inshore fishery," and its manner of prosecution is described by Mr. Bland of Bonavista in an interesting report furnished to Governor Gambier (1802) :—

"This perilous pursuit is prosecuted in two different ways—by nets during the winter months, and from March to June, in ice-skiffs, decked-boats, and schooners. The fishery by nets extends from Conception Bay to Labrador. About fifty pounds of strong twine are required to make a net, and each net is about forty fathoms in length, and nearly three in depth. Four or five men constitute a crew to attend about twenty nets, but in brisk sealing, the number of nets will require a double crew, in separate boats. The seals bolt into the nets while ranging at the bottom in quest of food, which makes it necessary to keep the nets to the ground, where they are made to stand on their legs, as the phrase is, by means of cork fastened at equal distances along the head-ropes. The net is extended at the bottom by a mooring and killock fixed to each end, and it is frequently placed in forty fathoms of water. To each end of the head-rope is fixed a pole standing erect in the water to guide the sealer to his net, and when these poles are torn away by the ice, they are directed by land-marks, and find their nets with creepers. On the Labrador coast, the seal fishery begins about the beginning of November and lasts till Christmas.

The seals upon this coast are of many species; and they are classed by names known only to Newfoundlanders. "Tars," "Doaters," and "Gunwails," and many others breed upon the rocks in summer, and may be called natives; but these make but little part of the fishery; our dependence rests upon "Harps" and "Bedlamers," which are driven by ice from the north-east seas. The Harp in its prime will yield from ten to sixteen gallons of oil, and the Bedlamer, from three to seven. The entire catch at Bonavista may be estimated at ten thousand, two thirds of which are Harps. The Harps yield thirty shillings each, and the Bedlamers, seven shillings and sixpence.

The Tars, Doaters and Gunwails mentioned in this report, are simply varieties of the "phoca vitulina," sea-calf, or Harbor Seal; the Bedlamers are, presumably, Hoods.

A net fishery is still carried by fishermen in the Straits of Belle Isle; but is somewhat different from the method described in the above excerpt. Robinson ("Ice-Riding Pinnipeds") has an interesting paragraph which discusses this fishery, which is worth reproducing:—

"When the Breton fishermen came here (Straits of Belle Isle) . . . . they were surprised to find the young seals minutely examining everything on the surface and below the water; they found that they had an ear for music, and would rise to a whistle, so they called them "badiner de la mer" ("sea sports"). It was a fatal curiosity that incited these fishermen to contrive something, not only to amuse, but to entrap the simple "phoque" (seal). This oblong network box, moored to the bottom, is supported on the surface by four small casks and five or seven bladders; it has no cover; but the network door at the end, stretched on a wooden frame, is connected to the shore by a long rope led to a capstan, so that the door can be closed as soon as the seals are inside. It requires skill and constant watching, but large numbers of seals used

Modern Steel Sealing Steamer. S.S. "Florizel" in the Ice.

to be taken in the seal net. The Harp seal generally becomes dazed by his awkward position, and is usually "meshed" in his endeavors to extricate himself below. The Hood seal, however, is not so easily caught, and often jumps the head-rope, and so escapes. . . . In 1763 the English, Irish, and the Jerseymen succeeded the French, and adopted the seal-nets and the ideas of the seal, and also a portion of his language, for they curtailed his pet expression into a "bad-la-mer," and the natural transition to "Bedlamer" quickly followed. This is the present name for a young seal until its fifth year."

With all due deference to Commander Robinson's poetic explanation of the word "bedlamer," I think the word is actually derived from "bete-de-la-mer" and those who are conversant with French expressiveness know the multitudinous application of "bete".

five to seven feet in length, with an indigo blue back, fading into grey, and a white belly. The face is dark grey, with a near black muzzle and long whiskers. The eyes are liquid brown and very beautiful. The nails of the claws are a neutral tint with a blue shade. They produce an immature "white coat" towards the end of February, or early in March, which changes its coat on the ice, in about twenty-five days, to pearl grey with brown spots, when it takes to the water. The young Harps continue to be spotted until they are five years old, when the grey assumes the deep blue color seen in the "prime" Harp. The Scotch sealers called them "saddle-backs." The "pup" of the Harp weighs from 7 to 9 pounds, and measures from 2 feet to 2 feet 6 inches. It has a small V shaped slit on the tip of its tongue. It is quite helpless, and often drowns. It remains for 12 or 14 days in the position

Crews Dragging Seal Pelts to the Ships.

We have really little accurate scientific knowledge of the natural history of the seals which are found in northern waters; our information is largely deductive. The following data have been derived from the experiences of sealing captains who have observed the habits of the seals for many years.

The Square Flippers float down the Labrador coast in pairs, or singly; they are not gregarious. They produce one cub at a birth, in June. They have little commercial value, as the skin is too thick, and the oil is not so good as that of the Harp or Hood. The Common, or Harbor Seals are ubiquitous, but not migratory, and frequent the bays and arms of the Atlantic coastline from Labrador to Cape Hatteras. They produce their young in quiet nooks, generally upon flat, smooth rocks, or shingle-beaches up the brooks. They often produce two at a birth, which are marked in golden buff and brown a few hours after they are "pupped." Occasionally, they are found on the ice with the breeding Harps, but nearly always alone.

The Harps are the most highly prized members of the great "phocidae" family. They measure from

in which it was born, and increases in weight from 1½ to 3 pounds daily.

"The solicitude of the mother seal" (writes Mr. English, editor of the "Mail and Advocate," who has made an exhaustive study of local marine life) "for her helpless little one is very touching. I have noticed mothers coaxing the little pups away by every possible maternal wile,—first with an apprehensive look towards the approaching steamer, then with a yearning, anxious glance at her baby, she would come near and put her muzzle gently to that of her young one, who would extend her nose to receive the fond mother's caress. Just for a moment would their noses meet, only long enough for the mother to give her little one assurance of her care. Then she would move away a few yards, and turning, she would go back to the struggling youngster, if it was not following. If she found it floundering on, she would just wait awhile for it to come closer. The young seal is like an infant learning to walk, and soon tires. When too tired to go forward, it will stop and roll over on its back to rest. Then the mother returns to dally beside her pup, every

now and then rearing up to gaze anxiously at the coming terror—the sealing steamer.

Hoods are somewhat larger than Harps, and have different characteristics. They pup about the same time as the latter; but the young Hood is grey, covered with blotches. They are wilder and fiercer than Harps, which may be said to be gentle, and even affectionate in captivity. Young Hoods come into the world fitted for life's struggle, but requiring growth and seasoning; yet, in all probability, they are capable of taking to the water shortly after birth. At least in a well authenticated case, the mother snatched up the infant, born only a few hours, in her paws, and plunged into the water. Yet they usually remain on the ice from twenty to twenty-six days.

The seal fishery in vessels began somewhere about the year 1803; and in 1804, 70,000 seals were captured. In 1815 the seal fishery had passed the hundred thousand mark, and in 1820 it had a harvest of more than 215,000. During the next quarter of a century the sealing industry assumed immense proportions, and ship-building became an institution throughout Newfoundland. In 1857 there were 400 sailing vessels, of from 70 to 200 tons, engaged in the seal fishery; their crews numbering 13,000 men. The annual average value of the fishery at this period approximated $1,250,000. In those days, Twillingate, Fogo, Greenspond, Trinity, Hants Harbor, Carbonear, Harbor Grace, and Brigus were great centres of the sealing industry.

Steam vessels were first employed in the seal fishery in 1863; and with their introduction, came a decline in the number of men employed. At the present time there are no sailing vessels engaged in the fishery, and wooden sealing steamers have given place to steel ships of great power and large tonnage, one of them, the "Stephano," being over 3,000 tons register.

In former days (during the boyhood of the writer) getting a "berth" or signing for the seal fishery (called "swilin' " in local vernacular) was one of the great annual events, and the day set apart for this important function was December 26th—St. Stephen's Day. Hundreds of fishermen might then be seen lounging around the premises of the local skippers looking for a berth. At signing time each man received what was known as the "crop"—an advance of goods to the value of twelve dollars, consisting of a pair of skin boots, tobacco, small stores, and occasionally a bottle of rosy liquid (the last-mentioned was carefully stowed away for emergencies during the voyage to the ice-fields).

Towards the end of February, the sealers poured into the shipping ports, behind them on small improvissed sleds their clothing and fishing accessories. Then there was a busy scene as the vessels (Schooners known as "Beaver Hats," and Brigs, and Brigantines) were being made ready for the quest. On March 1, the fleet began to move; then quiet reigned in town till the home-coming. But "tempora mutantur," such things are no longer existent, and the departure of the steel sealing fleet is as prosaic as a Quaker's funeral.

Steel ships now leave port on March 13th, with an equipment of 270 men (the number is settled by the owners), and the experiences of the voyage are influenced by the ever-shifting condition of the ice-floe and direction of the winds. The aim of the captains is to reach the "whelping grounds" of the Harp, while they are still in their oleaginous babyhood. The position of the seals is uncertain, being dependent on the movements of the ice during the months of January and February. If the ships are lucky they "strike" the seals within a few days after leaving port; and a load may be secured within ten days. But, should they fail to find the "patch," they return (as they did some weeks ago' "clean." This year will go down in history as the worst sealing voyage within memory, the total catch being under 40,000 pelts.

When the ship enters the patch, excitement among the crew grows intense. Soon the work of destruction begins: The seal is killed by a blow on the head from a gaff, and "scupped" (this means the removal of the pelt from the carcass, which is left on the ice). When the sealer has secured a "tow" (four to six pelts) he hauls them to the ship, should she be close by, but "pans" them if she is distant. When the panning is completed, the ship picks up the pans, and if the number panned is sufficient for a load, she bears up for the home port, as soon as the pelts are stowed away. On arrival at St. John's or Harbor Grace (now the only manufacturing centres), the pelts are "discharged," and the skinners remove the pelt from the fat by means of large knives. The fat is then transferred to grinders, whence it passes into huge tanks and there converted into oil. The skins are salted and kept in bulk till sold. Formerly sealers received one-half the catch as their share of the voyage, but nowadays they receive but one-third.

Notwithstanding the risky nature of the seal fishery, casualties are comparatively rare. The greatest sealing tragedies in our annuals occurred in 1914; and the year will be ever memorable as the "Spring of Disasters." During the season, 119 of the crew of the "Newfoundland," commanded by Captain Westbury Kean, were caught out in a blizzard on March 31, and April 1, and 77 of them were frozen to death. On April 4, the "Bellaventure," Captain Randall, arrived in port with 69 frozen bodies, the other eight were not recovered. The "Southern Cross," Captain George Clarke, returning from the Gulf, with about 18,000 seals on board, is supposed to have gone down in the vicinity of Cape Pine on March 31, with her entire crew of 173 men. Not a vestige of wrekage was discovered.

The outlook for the seal fishery in Newfoundland is by no means roseate; and the seal, like the whale, seems doomed to extermination. A local writer opines that "the disappearance of the seal from the ice-floes and waters of Newfoundland is only a matter of time. Possibly the middle of the present century will witness the end of it." Whilst we do not share the pessimistic opinions of the writer, we are forced to admit that there is a gloomy outlook for one of our greatest industries.

FISHING IN GALILEE

(From Scribner's Magazine.)

Most of the fish that abound in the sea of Galilee nowadays, as they did 2000 years ago, are a species of bream and chub. A canning factory, I am told, is now in process of erection on the shore not far from Capernaum. These fish were formerly taken almost wholly in nets, though fishhooks seem to have been known and used more or less throughout the East from very early times. Wilkinson tell us that angling was a favorite pursuit of the wealthy in Egypt as well as the poor who could not afford a net. Something like our modern wires were also in vogue, but in Gennesaret they were expressly forbidden by law, in Bible times. Fly fishing was unknown until a comparatively recent period.

THE PACIFIC FISHERIES

(Special Correspondence.)

The most welcome news has arrived in Vancouver that the Canadian Fisheries Association is interesting itself in getting an order-in-council passed that will allow fish to be placed on the army food list. If successful, the efforts of the Association will be more than appreciated both by those interested in the fishing industry and also by the soldiers in the training camps.

The West has felt the effects of the war far more than the East. Eastern Canada with its huge war contracts is able to employ many men who would otherwise be out of work owing to their former employers having to curtail. But out here considerable curtailing has had to be done unfortunately. Our laboring classes depend on railway construction, street improvements, lumbering camps, etc. In new countries there is always a vast amount of initial work such as railway construction, and when this ceases before the country is populated and its industries started on a large enough scale to take care of the population, the shutting down as is now required works a very great hardship all around.

Many fishermen have drifted out to British Columbia only to find that her fisheries are spasmodic. During the "runs" of the salmon there is plenty of work. The other great branch of the industry, the Halibut fisheries, is necessarily a deep water operation and as such is confined to large boats, and so is out of the reach of the shore fisherman. British Columbia's waters swarm with other fish, commonly called ' small fish', such as herring, smelts, soles, etc. But the market for these at present is so limited that the fisherman has not much encouragement to follow these 'small fish".

Again, the newly arrived fisherman found that with the building up of a new country, he can make more money at other trades. The Canadian and Newfoundland fisherman is essentially a'handy man,' so that big wages offered in building and such trades, drew him away from his original occupation. Real estate with its tempting opportunities also spread its lure over the fisherman. But now that he finds owing to economic conditions, that he has to fall back on his old calling, he finds that his field is very limited.

If the Canadian Fisheries Association is successful in its endeavours, such men as these will benefit greatly —take for instance the Camp at Vernon, B. C. There are some thousands of troops in training there. Give these men at Vernon fish (and many have stated that they would appreciate a change of diet) and it would mean that a good many tons of fish will be utilized.

I am not going into the matter whether fish is of sufficient nourishment to work men on. This has been covered often enough. But we all know what the Japanese nation did in their last war with Russia. The sole diet of the troops consisted of fish and rice. It will also not be out of the way to point out the stamina and lasting powers of the Newfoundland fishermen who spends the summer on the Labrador. Fish forms a very great part of his diet. It has also been pointed out that fish will be difficult to feed to troops on the firing line. This is granted; but each man has a certain time behind the lines at the base. The digestive organs require a rest as well as the other part of the body. What is better than fish to rest the stomach on and at the same time keep up the stamina?

There are others than the troops who would appreciate fish as a change of diet. I refer to the interned citizens of those nations with whom we are at war. We do not want to pamper these men at all, for they are being treated so well that their former rulers consider us foolish for so doing. What we want to do is to help the fishing industry of Canada. These foreigners are the main users of smoked and salted fish. Many of them will take this article of food in preference to meat. This then seems to me to be an outlet for our fish. When the sea offers us fish in such quantities that we are not able to take care of for fresh purposes, we would be enabled to use the surplus for the feeding of these interned prisoners. The labour and preparing of this smoked and salted fish would give work to many who now need it.

In war times every expenditure whether it be by government or by private citizen, has to be seriously considered. Meat is one of the most expensive items of food these days. If we have at hand an unlimited substitute for meat, and this substitute besides being of great stamina giving powers, is also on the average half the price of meat, surely if money may be saved this way it ought to be saved.

It is a well known fact that a great part of the meat supply of Canada is imported from foreign countries. A nation that utilizes as much as possible of her own resources is always wealthier than the one that imports products to the neglect of her own. Canada has no need to import fish of any description.

Let us all hope that the Association will have the success it deserves for taking this matter right to head quarters. Let us also hope that the concession asked for will be granted without delay.

GENERAL NOTES.

HALIBUT—Supplies coming into Vancouver are still more or less limited to coastal shipments. Seattle boats are finding a market here owing to the new order-in-council allowing the landing of fish in Canada. But this fish has to be landed in bond and to be shipped in bond into the United States again. This and the fact

that the other boats trading from Vancouver are American owned and so subject to the same rules, makes Halibut an article none too plentiful.

Puget Sound boat owners and packers were very much upset when first it appeared that Prince Rupert was allowed to handle American fish. But a 'Joker' appeared that they were not counting on. It is all very well to be able to land one's fish, but a buyer is a very necessary adjunct to the completion of the transaction. Buyers are very scarce in British Columbia who are in a position to buy a trip of Halibut and export it 'in toto'. If the order-in-council allowed the fish to be landed and duty paid right off, it would be a different matter. Seattle and the Puget Sound centres would have then something to fear indeed, for the extra duty paid would make up for the time saved in going into Puget Sound.

This year the fish seems to be found considerably to the South of the usual summer banks. Trips have been landed caught almost within sight of the Columbia river, which forms the boundary between Oregon and Washington.

It is also reported that Ketchikan in Alaska, the nearest American port to Prince Rupert has applied to the Grand Trunk Pacific for terminal rates. They may or may not get this concession. The chances are that they will not, for the railway has too much interest in Prince Rupert to allow this. It would mean that where she gained by getting freight that now goes by the American lines from Seattle, she would lose by not getting the vessels to call at Prince Rupert which is greatly to the interest of all connected with Prince Rupert.

SALMON—Bluebacks are still offering in fair quantities, and the run has lasted considerably longer than other years. Springs are a little cheaper, but will not be any more so as the canners are reported to be paying as much as seven cents per pound for these fish.

Many reports have appeared in various papers stating that Great Britain is a good market for frozen salmon. Of late there have been many enquiries, but at the prices offered, the fish would have to sell f. o. b. the coast for about three cents a pound to allow any profit. The cost of transportation is too excessive these days. In time it is expected that England will get away with more and more frozen fish. At present when one buys salmon in that country, one looks to pay a big price. Customers there have the idea that salmon is a luxury, and so it was at about fifty cents per pound. Once that they are educated to the fact that good frozen British Columbia salmon may be had for about seventeen cents per pound, and once that the old prejudice against cold storage goods is safely combatted, then the trade will be a large one.

CODFISH—The ban was placed lately on the much discussed trick of the Japanese fishermen of keeping cod in pens at the wharf if the market was overloaded and prices low. When prices bettered, they sold the fish as live cod. Some of this fish was kept in small pens and in water not of the cleanest for almost a week. The consequence was that the fish deteriorated and without means of getting their proper food, lost weight. It was also a question of sanitation. Starved fish is not healthy by any means. This ban will also tend to break up a so-called 'cod-fish trust', said to be worked amongst the Japanese fishermen and controlled by means of these pens.

It is reported that a man well known in the sealing and whaling business in Victoria, proposes to go into the Berhing Sea codfish business. A company is stated to have been formed with a capital of $100,000.00 and vessels will be purchased, which were formerly used in the fur-seal trade, now prohibited.

There are still large stocks of last year's fish held by the American companies on the Pacific. When first the war broke out Atlantic packers sold to markets that the Pacific packers always relied upon. It was a case of getting in out of the wet. As reports now go, it looks as if the Atlantic packers lost considerably by getting 'cold feet'. Atlantic cod is reported to be fetching record prices.

HERRING—Herring are showing up nicely around Point Grey. On other parts of the coast they have not been so plentiful. On the Queen Charlotte Islands the fishery was a practical blank, and a company that set up a camp for the packing of dry salt herring for China, had to shut down.

With conditions as they are in Europe, many are under the impression that herring will be at a premium —One hears of all sorts of packs under way by people who think that they know all about the trade. Whilst the American buyers will probably be in the market for a considerable quantity, still we have to give them the packs that their market wants. They utterly refuse to even look at the goods that usually are offered them. This is where there is liable to be trouble. One man will take pains to put up good stuff properly cured, whilst another will take no trouble at all to follow out instructions laid down by the Pickled Fish Inspection Act. These are the sorts of things that prohibit expansion of trade.

SMALL FISH—On the Coast we class such fish as seles, smelts, perch, skate and such like as "small fish," There are always good supplies of these offering on our markets, but the trade is somewhat limited, so prices hardly vary at all. Smelts are still around, but they are smaller than the Atlantic species.

CANNED SALMON—As stated before, canners are paying good prices for springs and so far this is about all that has been packed. The American packers on Columbia have shipped a few cars of fish that corresponds to this grade. Buyers from England have about placed their orders for the coming pack at firm prices, and all that is doing at present consists of small scattered lots. The carry-over will be small, some lines being about cleaned out, especially Cohoes. The war is making no great difference in prices for they are holding firm and the prospects are that they will stiffen somewhat. Several buying orders are in the hands of local brokers, but these sales will not be consumated until prices are announced by packers about the middle of August.

Prices quoted by packers:

Sockeye Talls $8.25, flats $8.75, half-flats $10.25; Cohoes Talls $4.75, flats $4.75, half-flats $6.25; Pinks Talls $3.75, flats $4.25, half-flats $4.50; Chums Talls $2.75.

SMOKED FISH—Herrings are now in such condition that they make very good kippers. Our Coast kippers are practically mild cured, and only packed for early consumption. The manager of one of the largest salt fish houses of New York told the writer a few days ago that our kippers were about the best he had ever tasted. Eastern connoiseurs please note.

With the summer months on us now grocers are finding a ready sale for cooked fish such as kippered salmon, black cod, etc. These may be used cold or heated up, and when one is arranging a meal with the least

cooking possible, one cannot do better than use some of our kippered fish.

SALT COD—Sales on this have been less than other years owing to the shutting down of most of the railway construction and lumber camps. The sales of salt fish in Western Canada outside of boneless codfish and Eastern herring are practically limited to the winter months amongst users other than camps.

With a plentiful supply of Pink salmon this year, the idea prevails that if the right parties were approached, many of the European Governments would place large orders for this fish in barrels. It would be a cheap and nourishing food for refugees and interned prisoners, costing not more than 6c. at European points of distribution. We think that some efforts on the part of the Department of Trade and Commerce would bring good results.

WHOLESALE FISH PRICES—VANCOUVER, B. C.

SMOKED FISH—

Finnan Haddies 15s and 30s, 10½c.; fillets 11c.; kippers 7c.; bloaters 6c.; salmon 11c.—14c.; halibut 11½c.; black cod 12c.

FROZEN FISH—

Steelheads 7c; halibut 6c; smelts, black cod, etc., 8c.

FRESH FISH—

Salmon, redsprings 8c.—10c.; white spring 5c.; halibut 6c.; cod 5c.; smelts 6c.; soles 6c.; whiting 4c.; skate 3c; perch 5c; rock cod 4c; red cod 4c4; bass 5c; black cod 6c.

PICKLED FISH—

Acadia 12|2s and 25|2s 14c.; strips 13½c.; tablets 14c.; brick cod 8c. to 9½c.; whole cod 6c. to 8½c.

SHELL FISH—

Crabs (Boundary Bay) $1.00 to $1.20; shrimps 12c.—16c.; prawns 20c.; clams 2c., clams shelled $1.25 gal.; Olympia oysters $3.25 gal.

MARKET FOR FROZEN FISH IN GREAT BRITAIN.

Although such fish as have been shipped from Canada to the United Kingdom arrive in a frozen condition, and, as has been frequently reported, frozen fish has so far never been popular in this market, opportunity has been taken to carefully follow the situation and to keep in touch with leading fish salesmen in case the impossibility of obtaining sufficient quantities of fresh fish might create an uniquely favourable opportunity for the introduction of the frozen variety to make up the deficiency.

While theoretically the moment would seem favourable for such a movement, it is found that marked divergence of opinion in the trade is held on the subject, and indeed the majority of the principal fish salesmen consulted do not consider that any profitable opening can be created for considerable quantities of frozen fish, even under the present exceptional conditions.

As has been pointed out upon previous occasions, there never has been any definite demand for frozen fish in the United Kingdom, mainly owing to the fact that practically unlimited supplies of fresh fish have always been available, and the majority of consumers prefer to give up fish altogether rather than to buy it in a frozen state.

During the past few years considerable quantities of frozen salmon have been imported from Canada and elsewhere, but these shipments have been bought up slowly and at disappointing prices.

Prior to the war the market was glutted with accumulated stocks, and while these supplies are now being decreased at a better rate, business is not particularly active, because the demand is curtailed and prices kept low by the exceptional cheapness of fresh salmon, unusual quantities of which are being thrown on to this market owing to the closing of the usual Continental outlets.

Concerning frozen halibut, while the prospects are considered as more favourable, particularly for small fish weighing from 4 to 10 pounds, salesmen who have handled the article report serious deterioration in the quality after thawing, and the receipt of numerous complaints by retailers to whom customers have frequently returned the halibut because of its flabby, pulpy condition.

It is also held that the heavy incidental expenses of carriage and cold storage decrease profits.

At the same time there are firms who hold quite different views, and upon the "Hobson's choice" principle, argue that if customers are deprived of the usual supplies of fish, they must perforce accept what they can get, and upon this basis, they consider, more particularly if the war continues for any length of time, that there must be a shortage of staples like herrings, cod and haddock, and that Canadian fish firms who are prepared to take up the business in a practical manner, would be well advised to keep their eye on the course of events, and in the meantime get into close touch with reliable firms of fish dealers in this country in order to thoroughly investigate prospects. — Trade and Commerce Bulletin.

FISH FOR THE GERMAN ARMY.

It is announced in the newspapers, says the Fish Trades Gazette, that the German Government, in the scarcity of ordinary victuals which is threatened, is about to introduce a fish dietary for the soldiers. A number of them, including those in the firing line, have to be provided with fish rations instead of meat, and the fish will be partly fresh, partly dried, and partly salted. Special cooks are going to the Front to show the men how to prepare the fish, while food experts will investigate the results and report to Berlin. Long ago, however, the German military authorities introduced a fish dietary into the army, though on a small scale, the fish meals being given only at intervals. It was found that the preserved fish, especially tinned fish, were preferred by the soldiers, and the South Germans, as the Bavarians, showed little partiality for fish of any kind. Sausages suited them better. Belgium also tried an experiment in feeding her soldiers on fish, by which a saving of about 12,000 francs a week was effected. The use of fish in this way was not agreeable to the agricultural interests, and not always to the soldiers themselves. The objection of the men was not to the fish as fish, but to the way in which they were cooked, and the paucity of sauce. They believed in an old Flemish saying that a fish should swim thrice—once in the water, once in the sauce, and once in the stomach.

SEPARATING FISH FROM FRIDAY

The New York Globe's Campaign For Cheap Fish

By JOHN L. BOYD.

(In Forecast Magazine.)

Last summer Alfred W. McCann, of the New York "Globe", went to the wilds of Cape Cod for a rest — to Provincetown, to be exact — and while there he absorbed the germ of an idea that has developed into a campaign for cheap, fresh fish for the city of New York and has resulted in the sale of hundreds of thousands of pounds of good, wholesome food at phenomenally low prices.

While Mr. McCann was recuperating on the Massachusetts coast, he was much impressed by the appaling waste of food fish in the little villages of Provincetown vicinity. He saw fishing boats come in loaded with beautiful freshly caught fish, saw the wholesale dealers refuse to buy them because, according to their ideas of the fish business, there was already an oversupply on the markets, notwithstanding the fact that poor people were unable to purchase either fish or meat, because of prohibitive prices produced by their so-called scarcity.

Mr. McCann came back to New York filled with bitter memories of the great stretches of beach strewed with decaying fish that found no purchaser, of boatloads thrown into the sea, of wasteful fish dealers and disgruntled fishermen. With his characteristic fighting spirit he determined that there was going to be a change in the fish situation, at least as far as New York was concerned.

He began his campaign by telling the people of New York of the criminal waste of valuable food that was going on at the New England fishing towns because of the shortsightedness and greed of the wholesale dealers and their representatives. He told them of the nutritive value of fish; how it supplied the body with body-building substances and sources of energy and fat; he told them how they were eating cold-storage fish when fresh fish was being thrown away by the boatload; he told them that they were paying three or four or five times as much for stale fish as they should be paying for fresh fish. He did this through the columns of the New York "Globe", in which newspaper he had for more than two years been conducting an active pure food campaign. Telling people of the waste of this valuable food was, however, simply a beginning. He had to show them that fresh fish could be marketed at a low price and yet yield a profit for all concerned. And on September 16, 1914, the "Globe Fish Stations" were opened to the people of New York. Fresh fish purchased by Mr. McCann himself were brought to New York, distributed to a number of retail fish and provision stores throughout the city and sold at "five cents a pound!"

Naturally the fish went like hot cakes. Housewives thronged the stations. Thirty thousand pounds of fish were sold the first morning and hundreds of angry and disappointed women who came too late to get any of the fish nearly necessitated the services of the police. During the first three days two hundred and sixty-three thousand pounds of fish were sold at the "Globe Stations" — all at the unheard-of price of five cents a pound!

Housewives served fish as never before, and expressed themselves as never having tasted such delicious fish. Being used to the stale, cold-storage variety, they were delighted with the fresh article provided by Mr. McCann. Naturally there were many difficulties encountered in organizing this original enterprise. Many of the proprietors of the stores which had been designated as fish stations, overwhelmed by the demand for the fresh fish, substituted stale fish for "Globe" varieties when the supply of the latter gave out. Many dealers used the "Globe's" free advertising to boost their own inferior stuff, with the result that some consumers cried "fake". The fish dealers, confronted with the situation of the loss of their business, began counter-moves against Mr. McCann and the "Globe". They raised their offers to the fishermen in the hope of cutting off Mr. McCann from his supply, but so much fish was offered to them at these prices that the bottom fell out of their attempt at retaliation.

Mr. McCann, however, was not to be deterred in his work of giving the people fresh fish. The "Globe" chartered a fishing boat to provide its stations with fish "from the sea to the consumer direct", and on January 18th the steam trawler "Heroine" came into New York laden with 50,000 pounds of cod and halibut, caught by her own men for the "Globe Stations".

The "Globe" paid the fishermen decent wages, financed the fishing trips and was able to make a profit of half a cent per pound on all fish sold at five cents a pound. The proprietors of the fish stations also made a profit and avery body was entirely satisfied with the arrangement — everybody, of course, but the dismayed wholesalers of fish.

The consumers' demand was so great that a second boat was chartered — the trawler "Long Island". This second fishing boat did not, however, remain long in service. The fish she brought in were not up to "Globe" quality, and on one trip seven thousand pounds were condemned by Mr. McCann as unfit for food. An investigation resulted in the discovery that some one on the boat had allowed a stream of live steam to run through the catch while it was being brought to New York. Her captain was told to remedy the defect, but failed to do so.

On her next trip 120,000 pounds were condemned for the same reason and her services were at once dispensed with. "Globe" quality was an ideal that Mr. McCann cherished and this standard had to be maintained, regardless of consequences.

Trouble with the Retailers.

The campaign ran into all kinds of snags. Some retailers refused to live up to the ideals of Mr. McCann and trouble ensued. Stale fish were palmed off on the consumers as "Globe" quality, and Mr. McCann had his hands full attending to the complaints that poured in from disgusted purchasers. For a time the sale was stopped and then early in April a new plan was inaugurated, which at present seems to have eliminated most of the difficulties.

On April 6th, Mr. McCann announced that from that day forward he intended to inspect personally all the

fish that were placed on sale and also to inspect the stations to see that nothing was sold as "Globe" fish except the real article.

Since the beginning of this new system, there has been little to criticise in the "Globe" fish campaign. Each day the variety of fish that is to be sold as "Globe" fish is advertised in that paper. The selling price is also given and if any station deviates a hair's breadth from the regulations as to price and quality outlined by Mr. McCann, that station is discontinued.

Most of the "Globe" fish is sold at five cents a pound, but some varieties, such as mackerel, cod and halibut, range from nine to sixteen cents a pound. A few days ago, while porgies, weakfish and flounders were selling at the "Globe" stations at five cents a pound, other fish dealers in New York were asking twenty-five cents for porgies, twenty-four for weakfish and twenty-two for flounders. While beautiful fresh mackerel were selling at the "Globe" stations for nine cents a pound, other stores were quoting as high as thirty cents a pound. Some stores asked twenty-five cents for butterfish and thirty-five for halibut, while "Globe" stations asked six and sixteen cents respectively. And none of the dealers' fish were sold on a money-back guarantee if not strictly fresh, such as Mr. McCann offered in bold headlines on the front poge of his paper. When asked why their prices were so high, these dealers invariably asserted that fish was scarce and that competition in the wholesale trade was so great that the best fish went to the highest bidder.

Such statements are no longer accepted by people who have bought "Globe" fish and even if all the "Globe" stations were to be discontinued, it is doubtful whether the people of New York will ever again pay the same high prices willingly. The "Globe" campaign has done much to demonstrate the legitimate value of fish and to show how the trade has been exploited by unscrupulous dealers. Although the campaign has only attracted the attention of people who are compelled to count pennies or the intelligent who are interested in the problem of food distribution, many fish dealers in New York have been compelled to reduce their prices far below the prices of other years in order to do any business. Especially is this true in the poorer sections, in the flat neighborhoods, so that Mr. McCann's efforts have not only resulted in cheap "Globe" fish, but also in reducing the retail prices of fish generally throughout the city.

Educational Value of the Work.

The chief value of this campaign is, of course, on the educational side. In almost daily articles over his name, Mr. McCann has taught the people of New York and vicinity a great deal about the fish business, from the catching of fish to its sale. He has made them see that the supply of food fish at its very doors far exceeds the demand. He has made the people realize the deliciousness and the nourishing qualities of fresh-from-the-water fish and has shown them that this sort of fish can be had all the year around.

He has shown them the advantages to be gained through a study of fish seasons and through buying certain varieties of fish when they are being caught in large quantities.

But perhaps the most important of all the results has been the fact that the "common people" — the ones upon whom the high cost of food falls heaviest— have begun to think of fish, not as a "fast-dish," not as a once-a-week food, but as an every day meat dish. They have begun to see that fish will supply sufficient protein to satisfy the needs of the body at a much lower cost than meat.

They have begun to take the hyphen from between fish and Friday. The education of the consumer as to the truth of the fish business, with the resultant increased trade, has also educated the wholesaler and the retailer that selling more fish at a low price is just as good business as selling small quantities at high prices, and that fresh fish sells quicker than stale fish.

NORWEGIAN FISHERIES IN 1914.

The "Fish Trades Gazette" in their issue of February 27, 1915, published a review of the fisheries of Norway in the year 1914, which is submitted herewith for the information of those interested in the Canadian fishing industry and desirous of being acquainted with conditions in competitive sources of supply.

Outstanding Features.

The statistics of the fisheries of Norway last year are not yet published, but a review of them is given in the last number of the "Norsk Fiskeritidende, from which the following account is taken. The cod fishery gave a result over the average as to quantity, and considerably over it as to value. The good prospects in the dried-fish markets allowed a higher average price to be paid to the fishermen. The quantity cured as split-fish was larger than in 1913, and the disposal of the product was good until the outbreak of the war, which disturbed business, with the consequence that the stocks at the end of the year were greater than for a long time. The cod fishery itself did not start very well, but things improved, and the aggregate catch was 57,900,000 fish, as compared with 41,200,000 in 1913 and 62,400,000 in 1912. The Lofoten fishery was very poor, and that at Tromso province and outside the Lofotens was also poor, but in Romsdal province the catch was unprecedentedly large, viz., 12,000,000 fish. The "Lodde" (capelan) fishery at Finmarken for small cod and codling began in the last days of March, and yielded 23,600,000 fish, as compared with 34,300,000 in 1913 and 33,700,000 in 1912. The prices were exceptionally high. The aggregate catch of cod (full-grown fish, or "skrei" and "looetorsk," or capelan-caught small cod) amounted to 81,500,000, of which 17,900,0000 were "hung" for drying as stock-fish and 60,000,000 salted for split-fish.

Herring Fisheries.

These were rather unequal, the "large" and the "spring" fisheries giving less returns than in 1913, and the quantity salted was less. The stocks at the end of the previous year were large, and the great Yarmouth fishing in 1913 kept prices down. In this instance, however, things brightened very much after the outbreak of war, and the demand for Norwegian herrings became active at good prices, and the whole stocks were soon cleared off. The catch of "fat" herrings was larger than in 1913, but they were generally of small size. The war here also soon cleared off the fish, and the financial returns were good. The "large" fishery began late, and little was caught before Christmas (1913); it improved in January and February. The total catch was about 220,000 crans, of which 128,300 crans were iced for export, 79,850 crans were salted, and the rest used for home consumption. The value was about 3,300,000 kroner, as compared with 4,200,000 in the previous year. The total catch in the spring fishery amounted to about 717,000 crans, against 1,000,000 crans in 1913. The average price was only 3.55 kroner per cran, the total value being about 2,545,000 kroner. The fat-herring fishery also began late, and though the quantity was less than in the previous year, the value was greater owing to the high prices. The catch was about 500,000 crans, as compared with 170,-

000 crans in 1913 and 336,000 in 1912. The average price was 11 kroner per cran, the aggregate amounting to about 5,330,000 kroner. About 23,000 crans were iced and 212,000 crans were sold to the herring-oil factories; 254,00 barrels were salted, against 106,000 in 1913 and 231,000 in 1912. The drift-net fishing in the North Sea was a small affair, yielding only 2,900 barrels, as compared with 9,900 in 1913 and 20,900 in 1912. At Iceland the Norwegians salted 148,664 barrels, the Icelanders 71,742 barrels, the Danes 24,960, the Swedes 25,972, and the Germans 1,950 barrels.

Mackerel.

The fishery for the American market (Dorgemakrelfisket), which takes place in the North sea, began better than in the previous year, but was interfered with on the outbreak of the war, the grounds being exposed to the possible warlike operations of the belligerent fleets. The fishery closed much earlier than usual on this account, and the catch amounted to 35,512 barrels, as compared with 42,949 barrels in 1913 and 48,699 barrels in 1912. The prices were fairly uniform throughout, about 90 ore per kilogramme for No. 1's down to 30 ore for No. 5's. The average price was higher than in 1913, and the aggregate value was estimated at about 1,978,000 kroner. About 18,000 barrels were brought into Norwegian ports by Swedish vessels, nearly all to Kristiansand. The coast mackerel fishery yielded between 12,000,000 and 14,000,000 fish, valued at about 1,300,000 kroner. About a million and a half were salted and split, and 421,000 kilogrammes were exported fresh, against 735,000 kilos. in the previous year.

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Vol. II. MONTREAL, AUGUST, 1915 No. 8

CANADIAN FISHERMAN

THE MAGAZINE OF CANADA'S COMMERCIAL FISHERIES

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To The Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

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FISHERIES:

In addition to the full statistics of the Fisheries which are published yearly in the Annual Report, the Department issues monthly bulletins containing statistics of the sea fisheries and general information in regard thereto. Copies of these will be sent free to any applicant.

The value of the Fisheries of Canada is now about $34,000,000.00 annually.

The demand in the home markets for fresh and mildly cured fish, is expanding very rapidly. The Department pays one-third of the express charges on less than car-load lots on all shipments of such fish from the Atlantic Coast to points as far west as the eastern boundary of Manitoba, and from the Pacific Coast, as far east as this boundary.

Close Seasons for Fish in Force on May 1st, 1915

Kind of Fish:	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.
Bass (Achigan)	.....	.....	.....	1 April to 15 June.
Maskinonge	.....	.....	.....	15 April to 15 June.
Ounaniche	.....	.....	.....	1 Oct. to 30 Nov.
Oysters	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.
Quahaugs	Oct. 1 to May 10 July 1 to Aug 31.	Oct. 1 to May 10 and July 1 to Aug. 31.	Oct. 1 to May 10 and July 1 to Aug 31.	.....
Pickerel	.....	.....	.....	.....
Salmon (netting)	Aug 16 to Feb. 28	Aug. 16 to Feb. 28.	Aug. 16 to Feb 28	April 15 to May 15.
Salmon (angling)	eAug. 16 to Jan. 31.	Sept 16 to March 31.	Sept. 16 to March 31	Aug. 1 to April 30.
Smelts	fApril 1 to July 1.	fMarch 1 to June 30.	fApril 1 to June 30.	Sept. 16 to April 30.
Sturgeon	.....	June 1 to July 1.	.....	April 1 to June 30
Speckled Trout	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to March 31.	June 1 to June 30.
Salmon Trout	.....	.....	.....	Oct. 1 to April 30
Whitefish	.....	.....	.....	Oct. 15 to Dec 1.

Kind of Fish:	Ontario.	Manitoba.	Saskatchewan and Alberta	British Columbia.
Bass (Achigan)	a15 April to 15 June.	.....	.....	.....
Maskinonge	15 April to 15 June.	.....	.....	.....
Ounaniche	.....	.....	.....	.....
Oysters	.....	.....	.....	May 1 to Aug. 31
Quahaugs	.....	.....	.....	.....
Pickerel	cApril 15 to May 15.	April 15 to June 20.	dApril 1 to May 15.	.....
Salmon (netting)	.....	.....	.....	.....
Salmon (angling)	.....	.....	.....	.....
Smelts	.....	.....	.....	See regulations.
Sturgeon	.....	gMay 15 to June 15.	gMay 15 to June 15.	.....
Speckled Trout	Sept. 15 to April 30.	.....	.....	.....
Salmon Trout	hNov. 1 to Nov. 30.	.....	.....	.....
Whitefish	hNov. 1 to Nov. 30.	Sept. 15 to Nov. 19.	iSept. 15 to Dec. 15.	.....

a—Except in Lake Erie west of Pt. Pelee and around Pelee Island, where close season is May 25 to July 15.
b—Except on leased areas, where close season is from 1 July to 31 Aug.
c—No close season in St. Clair River and off Lambton County.
d—Except in waters north of or intersected by 54th parallel north lat. between eastern boundary of Saskatchewan, and 109th meridian and in waters intersected by or north of 55th parallel n. lat. west of this meridian to western boundary of Alberta, where there is no close season.
e—Except in Cape Breton Island, where close season is from Sept. 27 to May 31.
f—Bag-net fishing season Dec. 1 to Feb. 15; gill-net fishing season Oct. 15 to Feb. 15. Licenses required for bag-nets or gill-nets.
g—Sturgeon fishing prohibited until Jan. 1, 1916.
h—No close season in Lake Erie.
i—Except in waters specified in (d) where close season is from 1 Oct. to Nov. 30.
For British Columbia See Regulations.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA, THE SCIENCE OF THE FISH CULTURE AND THE USE AND - VALUE OF FISH PRODUCTS -

F. WILLIAM WALLACE
EDITOR

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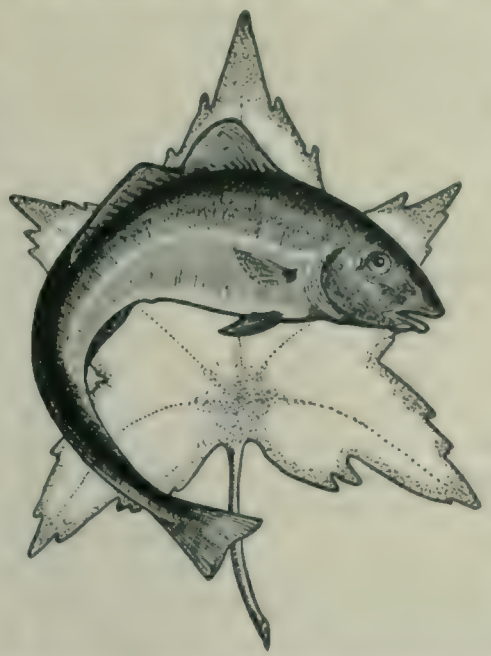

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Official Organ of the Canadian Fisheries Association

Vol. II. MONTREAL, AUGUST, 1915 No. 8

FISH HATCHERIES VS. PROTECTIVE LAWS.

In the beginning, when all creatures lived, propagated, and died in their various elements, and mankind had not utilized them for the upkeep of his own existence, the laws of nature adjusted and regulated creation so that a balance was evenly maintained.

The fish life of the primal waters was abundant, but never too abundant that overcrowding resulted. Natural forces destroyed a certain percentage of spawn and young, and the old law of the survival of the fittest and the preying of one species of fish upon another kept the waters free from congestion.

When man first fished the rivers and lakes another devastating power was added, and as the years went by, the natural laws of propagation failed to keep up with the toll on certain species of fish life. To remedy this, man made laws to protect certain fish in danger of depletion and extinction. The laws are various. Almost all detail close seasons when particular varieties cannot be captured; others demand licenses to engage in the fishery—thus keeping down the number of fishermen—and stringent regulations are enforced as to the methods of fishing, sizes of nets and mesh, etc., while numerous fish catching appliances are forbidden. Penalties for breaking the laws are severe.

To supplement the protective nature of the fishery laws, artificial propagation for certain species by means of fish hatcheries has been established of late, and the work of these hatcheries, as carried on by the United States and Canada, has been highly creditable and beneficial. Waters, which were in danger of being fished out, were re-stocked artificially and the fishing rendered as good as ever. In fact, the results of artificial progagation justify a relaxation of the fishery laws, and a greater development of the hatchery scheme.

The commercial fishermen and those engaged in exploiting the fisheries of the great lakes of Canada, find the laws extremely severe, and yearly they find it hard to make a living or an adequate return for the capital invested in plant and equipment. Among them, the opinion is expressed that the laws of size limit and close seasons should be abolished and the restocking of the waters undertaken by artificial propagation. Briefly their slogan is "Fewer laws and more hatcheries."

In Forestry the universal rule is that for the one mature tree cut, a sapling shall be planted in its place. The fishermen claim that such should obtain in the fisheries. Many fish—trout, whitefish, pickerel, etc.—caught are of marketable size, but the 1½ lb. (dressed) limit, usually means that a large proportion of the catch has to be returned to the water.

The writer has seen fishermen on the Lakes with seven or eight hundred pounds of fish in their pound nets—75 per cent of which were of marketable (not lawful) size, and after the fishermen had made the cull, according to law, but a scant eighty or ninety pounds could be marketed. Were they allowed to market the fish of marketable size, fishing would be a little more remunerative than what it is.

With open seasons and no size limits, the consumer could hope for cheaper fish. The requirements of the markets would regulate size of fish just as adequately as the present laws. There would be no market for under-sized fish, and no money in catching them. There could be no glutting of the markets, for just as soon as the supply exceeds the demand, the price of fish would go down, and it would not pay the fishermen to catch fish when the market was low.

A close season for fish in spawning times would be reasonable, but the abolition of size limits, with more hatcheries to remedy depletion, would suit the fishermen and dealers better. Artificial propagation is better than natural reproduction. Hatchery authorities in Canada state that more eggs reach maturity artificially hatched than otherwise. The eggs are taken care of through the natural dangers of rough water, and preying enemies. The liberated hatchery fish stands a 100 per cent better chance to exist than does the young fish bred naturally.

There are many arguments against relaxing the laws, but there are just as many for the movement. Fishermen should be encouraged, not strangled out of a living by regulations and penalties. Conservation is a good thing, but there can be too much conservation. When a man is licensed, restricted in his catch by laws, weather conditions, etc., he has to work extremely hard to make a living with the expensive gear necessary.

More hatcheries and lighter regulations would seem to solve many of the fishermen's troubles in Canada, and fishery development along these lines would not hurt either the Industry or the Fisheries.

THE GULLS.

No persons are so familiar with the gulls as are the fishermen of the seas and lakes. Both work, as it were, hand in hand, if such a simile can be used without the accusation of Hibernianism.

The gulls can spot a fishing vessel or boat a mile off, and they immediately appear from nowhere, and act as a winged convoy. That they are capable of such discernment is easily proved, for the beautiful water birds are not to be seen following yachts and commercial craft in the numbers usually attendant on a fishing vessel.

To a gull, the fisherman is a sort of free lunch counter. The birds hover about him with a vigilant eye for culls and fish offal, and an appreciative squawk for a tasty liver thrown overboard. And there is very little eatable that escapes them.

Out on the fishing banks of the Atlantic, the gulls are most numerous in winter, and great flocks of them attend the fishing fleets. While the fishermen are engaged in fishing, the birds rest upon the waves, but as soon as "dressing down" commences they are whirling, wheeling, and diving for the offal with wierd squawks of thanks for the tasty meals provided for them.

Upon the Great Lakes, the gulls are extremely numerous in summer—probably they are the winter gulls of the salt waters — and the gill-net tugs have a constant convoy. At the pound nets, a gull is usually perched on every stake awaiting the arrival of the fisherman's boat. Their voracity is wonderful. A gull will think nothing of gorging a fish weighing from 1½ to 2 pounds, and one can see them, after swallowing such a fish, hardly able to fly, and with the tail sticking out of their beaks.

As scavengers, the gulls do an immense amount of good work in keeping the fishing grounds free from pollution, and the fishermen can thank them for it. Were it not for these birds, the Banks and grounds would soon become "gurried" and fish of the better grades would avoid the areas polluted by constant dumpings of viscera from the fishing craft.

The gulls often aid the fishermen to make captures by their hovering and circling over schooling herring, mackerel, pollock, etc. As the fish school near the surface of the water, the gulls make lightning-like dives among them, and can be seen flying off with wriggling victims in their beaks. Fishermen, noting the actions of the gulls, need no further evidence as to the presence of fish.

In the winter gales of the Atlantic Coast, it is quite a sight to see the gulls crouching for shelter under the lee of the giant combers. They cannot fly against the fury of the wind, and skim just below the wave crests—hastily winging, with desperate effort, over the tops of the surges into the shelter of the next trough as the wave breaks into foam. When fishing vessels are lying hove-to in the winter breezes, a number of gulls will invariably be seen keeping in the lee of the ship and close to her side. As the vessel moves ahead, they keep pace with her and "hang to loo'ward with pinions scarcely making a motion.

No fisherman should ever shoot or kill a gull. They are his best friends, and should be protected, even if it were not only for the cheerfulness of their company on the watery wastes.

FISH RESTAURANTS.

In Great Britain, immense quantities of the coarser grades of fish are consumed through the medium of the Fish and Chip restaurants. Throughout the country there are thousands of these restaurants and they play an important part in catering to food supply of the poorer classes.

The restaurant requires no great outlay in the way of equipment. A gas or coal stove with large pans in which to fry the fish and potatoes; knives, forks, plates, salt, pepper and vinegar bottles, and plain counters or tables at which the diner partakes of the fare, do not call for a large investment in fitting up.

In Canada, there are a few of these Fish and Chip places, but they are by no means universal. Opportunities are open in this direction, however, and fish deal-

ers would be doing a good thing for themselves if they encouraged the establishment of such restaurants and assisted experienced cooks to set up these little stores in the poorer districts.

In England, the fish commonly used are plaice, skate, and a few other varieties. In Canada, halibut is largely used in the fish restaurants already established. With more of these eating houses, the coarser grades of fish would find a large market, and incidentally the poor would be enabled to have clean, healthy and satisfying meals at very little expense. The idea is worth encouraging, and dealers can develop their business by making efforts to have these restaurants established in their localities.

PISCATORIAL PARAGRAPHS.

The Atlantic fisheries produce the succulent finnan haddie; the Pacific turn out a palatable delicacy in the smoked salmon and smoked halibut fillets, but have you ever tasted the kippered goldeye of the inland lakes? They'll hold their own in tastiness with any of the others.

* * *

Mr. W. A. Found, Superintendent of Fisheries, Ottawa, has been making a tour of the Pacific Coast recently.

* * *

Seven refrigerator carloads of iced halibut made up a special fish express from Prince Rupert on July 10th. The shipment was made by the Canadian Fish and Cold Storage Co., Ltd., to eastern Canadian and U.S. points. The company have been shipping from seven to fifteen carloads of fish weekly.

* * *

Mr. J. E. Eckman of the Winnipeg Fish Company, has left to take up a new position in Minneapolis. Mr. W. Lewis succeeds him as manager of the Winnipeg Company.

* * *

Mr. D. J. Byrne, President of the Canadian Fisheries Association, has been re-elected a director of the National Oyster Growers and Dealers Association of America.

* * *

Look out for the Special Edition of the "Canadian Fisherman" next issue. If you are not a subscriber, become one now, and get the special number and the Fisheries magazine for twelve months. One dollar per annum brings it to you monthly.

* * *

The membership roll of the Canadian Fisheries Association is steadily mounting up. The objects of the Association appeal to all branches of the fishing industry, and no enterprising producer, wholesaler and retailer, with the interests of the industry at heart, can afford to stay out of the Association. A meeting of the Executive Committee is being held some time in August, and many important matters will be considered and acted upon. The Nova Scotia branch of the Association has been organized, and it is hoped that the British Columbia branch will be promoted shortly.

1915 AUGUST FISH DAY CALENDAR 1915

Sun.	*Mon.*	*Tues.*	*Wed.*	*Thur.*	*Fri.*	*Sat.*
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	-	-	-	-

REPORT ON THE FISHERIES EXPEDITION TO HUDSON BAY IN THE AUXILIARY SCHOONER "BURLEIGH"

By NAP. A. COMEAU, Officer in Charge.

As per instructions received, I left Godbout on the 22nd of June, for Halifax, there to join the schooner Burleigh and proceed to Hudson Bay, as soon as possible thereafter.

Arriver at Halifax on June 26th, 1914, and next day went to the Department of Marine and Fisheries agency and reported. I found that the vessel was far from ready. However, work was proceeding as quickly as practicable. Supplies were ordered, crew engaged by the captain, sails bent on, etc., and we were finally ready to sail on the 8th of July. In the end this delay did not make much difference, as we could not have entered Hudson strait before the date we arrived there, July 31. The ss. Bonaventure, which left Halifax about July 3 arrived off the Button islands on the 14th and was 17 days in the ice, before she could force an entrance on the same day that we reached there. I had expected this all along, owing to the late season all over the rest of the province; so it could not differ much so far north, in fact we might expect worse. The weather was very cold, from the time we passed above 40 deg. Farenheit, and as low as 25 deg. During the passage of 37 days, we had 25 of more or less fog and rain. We had intended going to Fort Churchill in the first place, but owing to some trouble with our compass, bringing us further south than expected, headed for Port Nelson, so that I could report our arrival to the department. We reached there on the 14th of August. Next day prepared our camp outfit and provisions, and left on Monday the 17th to investigate the fishing on the Nelson river. This work was later continued along the coast line and in other rivers until the 24th of September. As the Burleigh could not be kept there so late, I had ordered her back on the 8th of the month, thus giving me two weeks more time there for my work. I returned on the Bonaventure, leaving Port Nelson on the 27th September and arrived at Sydney on the 6th of October, p.m., and the Burleigh reached Halifax on the 19th of October. In this report each subject will be treated under separate headings.

Whales.

Many whales were seen on the trip, both going and returning between the straits of Belle Isle and Hudson strait. All in that section were apparently of the kind known as "finers" "Balaenoptera sibbaldii."' In Hudson Bay I only saw one, a "bow head" "Balaena mysticetus," it was seen about one hundred miles from Cape Tatnam. The beluga or white whale was seen in great abundance in the estuaries of the Nelson and Hayes rivers and also in those of all the rivers and creeks of any size in that vicinity. In the Nelson I saw them up near Seal Island just a mile or so below the tide limit. In the smaller rivers and creeks they only enter the mouth at high water and move out as soon as the tide begins to fall. From examination of the contents of four specimens(one shot at Partridge river), I found that their chief food consists of whitefish and capelin; in one there seemed to be remains which looked like that of a carp or sucker.

They enter the streams shortly after the ice is gone out, and when the fish are on their way to sea, disappear for a short while, and then return with the migrating fish on their way back to spawn. The quantity of fish consumed by the beluga must be enormous. When the locality can be more easily reached, and labor and cost of living cheaper, I believe they can be taken in paying quantities, by the use of stake fisheries as used in the St. Lawrence. The water being discolored with clayed substances would be a great advantage. I noticed they were much less shy than in the St. Lawrence. Their destruction should be encouraged.

Seals.

At certain periods, notably in September, when the fish enter the rivers, seals follow them up. In the western portion of the bay, visited, they all appear to be of one species, which I take to be the "barbed seal" "Erignatus barbatus." I shot three of them, but unfortunately secured only one, which floated some days later, and was partly eaten by bears. I have, however secured the best part of the skull which will be sent to the Oepartment. In the straits I observed some harps or Greenland seals, "Phoes groenlandica," floe rats, "P. hoetida P. vitulina" and one hood seal, "Cystophora christata." Around the McDonald islands and Charles island they were especially numerous. I had no chance of securing any. Four narwhals, "Monodon monoceros," were also seen in that vicinity. No walrus were seen at all. The stomach of the seal killed contained remains of suckers and whitefish, but I presume that all kinds of fish found there fall a prey to them. The destruction of fish by the seals in that western section from Churchill to James Bay, cannot be very considerable, because they are not numerous anywhere in the vicinity and at times are not seen at all. Very few are killed, the Indians not appearing to care much for them either for food or otherwise, quite in contrast with the Esquimaux, who pursue them constantly, further north.

Salmon.

No appearance of any kind of salmon was seen in any of the several rivers that I visited, although I tried many times with drift and fixed nets and also the seine. The locality is certainly not very favorable for that kind of fish, owing to the clayey bottoms of all these streams and the extensive mud flats in their entrances. Many of these rivers cannot be entered even by small fish before the tide is more or less high. The whole of this western coast line is very low, swampy ground; near the sea coast there is a grassy beach two or three feet above the summer river level. The streams cut their way through these low banks for a short distance from the mouth and then the water spreads itself out like a fan over the extensive flats and loses all semblance of a river. One can often be only half a mile from the entrance and find no indication of any river, unless it is a good sized one.

Further north beyond Churchill and in the south eastern portion of the bay where the rivers have sandy and gravelly bottoms, the natives tell me they have taken a species of fish, which, according to the description, belongs to the salmon kind.

I have a report that one salmon was found dead on

the ice, in Stuparts Bay on the 5th of August, by one of the crew of the s.s. Bonaventure. From the description given to me, it was apparently a specimen of our Atlantic salmon "Salmo Salar."

Trout.

From reports gathered from residents, Hudson Bay Company's agent, and natives, trout migrate to the sea immediately after the opening of the rivers in Spring. This usually takes place in that section early in June in ordinary years. The fish return about the middle to end of July, and probably in August. Sergeant Walker, an ex-member of the R.N.W.M. Police, showed me a diary that he kept of his catches of trout, on Sam Creek where he resides, and the heaviest runs appear to be about the end of June, this was with a net, but he also had some good scores by angling. When I arrived at Port Nelson the run of the fish was considered to be over and no one fish for them, either with net or fly. I was told that I was too late for the fishing. However, when I went up the river a few miles, I found there were still plenty to be had, both by net and angling. In the main stream of the Nelson I could not get any by angling either with bait or fly, but I got plenty in the net. In the small tributaries and creeks wherever the water was bright and clear they took the fly readily. They ranged in size from half a pound to five and a half pounds, this last being the heaviest fish I caught on the fly. This fish was taken at the entrance of North Seal creek, a tributary of the Nelson. The probable cause of their not frequenting the main river is due I believe to the discoloration of the water by clay and the immense quantity of sediment in suspension, especially after rain, which washes down its steep clayey banks. The residents claim there are two kinds of trout. One they call salmon trout and the other river trout, basing their distinction on the color of the skin and also of the flesh, one being brightly colored with red spots and the other of a darker appearance and the spots more obscure. I examined carefully many of those we got and could find no difference at all in them. They are all of the same species, "Salvelinus fontinalis." The different color of the flesh is no distinction. It is due to other causes not satisfactorily explained yet. It is not a sexual difference either. All the trout that migrate to the sea lose the bright colors that one sees on the fish that remain in fresh water. The fish that migrate to the sea lose their color very quickly in the salt water, but take it on again after their return to fresh water—exactly the same thing as takes place with our St. Lawrence fish, and I could see no difference between the two. I did not get or see a single specimen of "Salvelinus oquassa" in that region.

Judging from the size of the spawn in the ovaries, the date of spawning of these fish is about the same as ours, about October. It seems as if in the smaller streams and creeks many of the fish never migrate to the sea, and not having the same abundance of food never attain the same size. These are what the people call the river trout, or with us, brook trout. If, perchance there really is another variety, I did not see any specimens during my trip.

Sturgeon.

This species of fish is reported to be abundant in the upper waters of both the Nelson and Hayes rivers. An odd one is sometimes taken in the whitefish nets set by the Indians in the estuaries, but the proper fishing grounds are said to be at and above the Limestone rapids. We tried both fixed and drift nets in the entrance and tideway, but did not succeed in getting any. I also tried in the same way the pools below Deer island without success. I believe the water was rather too deep in that section, in one place I found thirty-eight feet of water. The bottom of the river certainly appears very favorable and well suited to the habits of these fish. In all the eddies and sheltered places long grasses and other water plants are abundant, and must afford good feeding grounds. Dr. Sinclair, of Le Pas, who came down the Nelson in September, told me he had seen one killed by the Indians on the way. It was about four feet long. This was during the present season. Possibly earlier in the season, in June or July, the fish may be found near the estuaries.

Whitefish.

This is certainly the most abundant and valuable fish of that region. Early in the spring, after the ice has gone out of the rivers, they are caught in short nets set along the shores at random, in any place, not only in the rivers and estuaries but along the coast line as well. This would indicate a migration to the sea, and possibly they may have been seen or taken some distance off shore, which has given grounds for the report that large herrings had been seen in the bay. To the ordinary observer, they could certainly be easily mistaken for one, as they look very much like herrings. Another good proof that some such migration does really take place is the fact that in September we got them in nets everywhere along the coast that we visited and in the entrance of all the rivers, big or small, and run all one way, heading up stream. The settlers, what few there are, and natives, fish for them in the most primitive way. A short net of seldom more than five or six fathoms long, frequently less, and four to five feet in depth, is attached to a few poles driven into the muddy bottom. This net is run out in a straight line from the shore, has no trap or pound of any kind, no floats or sinkers. Very often no canoe or boat is used in setting or visiting the nets, they simply wade out as far as they can go comfortably, it serves as a bath at the same time, not an unnecessary thing. In these short nets an average catch of about fifteen fish is taken each day, just about enough to supply their needs, which is all they care for. This fishing lasts from the opening of the rivers until about the end of July when the fish disappear for a time, and commence running again about the end of August and from that on till the fall. These were the dates given to me by the natives. I found however, by actual experience, that while at the time they were getting no fish at all (August 17) in their shore nets, I could get as much as two barrels in one haul of our small seine. We also set fixed floating nets with a short winger at the end and seldom got less than thirty or forty fish, each day, or night. Later in September the quantity increased considerably, at Seal creek on the Nelson, we got close on to a ton of fish in three hauls of our seine. This seine of ours was only twenty fathoms long and only intended for experimental fishing. Going over so much ground in a few days the places selected for fishing may not have been the best that there is. It takes a considerable time to locate suitable places, having first to ascertain depth of water, kind of bottom, snags, if any, etc. If, as seems to be an accepted fact, these fish move out to sea, the use of drift nets outside, as soon as the ice disappears in July, might prove successful. Of all the fishes of that locality the whitefish will certainly be the one that will prove valuable and easiest and cheapest to fish.

Other Species of Fish.

There appears to be a considerable quantity of pickerel in the Nelson river, some of very fair size, up to nine pounds weight, taken in our seine. I did not see this fish in any other river, but it will likely be found in the Hayes river also. This fish, although locally called pickerel or jackfish,, is really a pike, "Esox lucius," of our southern waters.

A species of sucker, "Moxostoma," is also found in the Nelson and Hayes rivers, but it is not much esteemed as a food fish. They do not seem very abundant, as we seldom got more than three or four in a haul of the seine.

Little or nothing seems to have been known so far of the existence of capelin, "Mallotus villosus," in Hudson Bay. I was therefore exceedingly surprised when I found out that the beluga or white whale subsisted partly on them, as proven by examination of contents of the stomach. Dr. Marcellus, at present in charge of the medical department of Port Nelson, but formerly of Port Churchill, states that the beach was some years covered with a small fish, which from his description was capelin. Sergeant Jones of the R. N. W. M. Police also gave me the same information. He said the natives around Fort Churchill collected them for food. This was during the month of June when the fish came near shore to spawn, later on they move out to deeper water and could not be so easily observed. This is what affords subsistence to these immense quantities of white whales that frequent these shores early in th season, before any fish could migrate to the sea from the rivers. One specimen of "goldeye," weighing two and a half pounds, was taken in a net on the Nelson river, unfortunately the specimen was lost. I had placed it near our tent in some cool moss to preserve it, and it was carried away by a mink during the night. It appeared to be a subspecies of the genus "Coregonus," and evidently not very numerous, as we did not see it anywhere else on that coast.

Some of the Indians from York Factory spoke to me of a species of fish resembling cod, which is sometimes seen late in the fall along that shore. Mr. Macdonald, one of the agents of the Hudson's Bay Company, whom I met at Port Nelson, said there was an abundance at times of a species of rock-cod in the south-eastern part of the bay. They ranged in weight from two to seven pounds, and were frequently taken in shallow water and some times by fishing from the rocky points. I tried fishing in September, in depths of six to seven fathoms, but got nothing. I don't believe the bottom is suitable for such fish in that section, being too muddy. Mr. Macdonald said he had caught them himself in quantities. The stomach of a polar bear, which I examined, contained, amongst other things, remains of some species of sculpin, shreds of skin, which were mottled grey and black, probably "Cottus Axillaris." No grayling were seen or taken in any of the streams visited, although they are reported as being common around Churchill and further north.

Value of Fisheries.

Little or no benefit can be derived for the moment, from the fisheries on the western side of Hudson Bay, beyond supplying the local demand. The distance is too great, and the difficulties of reaching it too numerous, to enable any sailing vessel from the Maritime Provinces or Quebec making profitable trips, no matter how considerable these fisheries might be. They must be developed by local fishermen and this will only be done profitably when the Hudson Bay Railway is completed. Then I have no doubt they will prove of great value to the northwestern provinces. From what I could ascertain during my short stay there, the best fishing season would be from the middle of June to August, when the fish are on the coast shores after the migration, and then from September until about October, when the ice sets in. From Churchill south to James Bay, most of that coast is fringed with long and low muddy flats, strewn over more or less with small boulders, these extend several miles from shore in most places. There are practically no harbors even for light draught vessels, if we except the Nelson river. Fishing will therefore have to be prosecuted in light draught boats, that could enter most of the small creeks or rivers at high tide. Drift nets of two or three inch mesh in extension will be found, I think, the most suitable for coast fishing. In the estuaries and rivers fixed floating nets of moderate length, two and a half inch mesh, are the most suitable. Seines are very quick and handy engines for catching fish of all kinds, but they cannot be used except on clear bottoms and where the currents are weak.

During the time I was on the Nelson, especially on my last trip in September, we could easily, had we devoted all our time to it, have taken with our short seine, from eight hundred to a thousand pounds of fish daily. In one single haul we caught 689 whitefish. On the Hayes river, near Fishing Island, a haul of 100 fish is frequently made. Even at a moderate price, this would be quite a lucrative business, provided it could be shipped fresh to market, as will be the case in a year or two. Some experiments that we made in salting, a few proved very satisfactory. They were equal to the best quality of herring in richness and more delicate in taste. Valuable as these fisheries may be to the Western Provinces, they will be totally eclipsed by another source of revenue and that is in,—

Game Preserves.

I have visited and shot over most of the celebrated game resorts of this continent, the Northwestern States, with its famed duck ponds, Lake Champlain in its palmy days, the famous Longue Point and Sorel marshes, seal reef in the St. Lawrence and the Labrador shore with its myriads of birds; but never have I seen anything that could compare to this Hudson Bay shore. Geese of various kinds, black and pintail ducks, many species of plovers and the smaller members of this family, are to be found there in countless thousands. All that low marshy belt of land extending from Churchill to James Bay, several hundred miles in length and eight to ten wide, on an average, is nothing but an immense breeding ground. Resting in our canoe at night on the mud flats, waiting for a rising tide, we actually could not sleep owing to the continuous honking of the geese around us. Flocks of several hundreds were constantly rising as we sailed or paddled along. Closer to the shores, in the ponds and marshes in the early mornings, or at night, masses of smaller birds were continuously on the wing. At high water, the grassy ridges near the creeks were lined with immense bunches of pintails, "Dafila acuta" and green winged teal. One single shot in a bunch on the wing would generally be sufficient to keep three hungry men satisfied for two days. A list of all the different birds found in this section is appended to this report. It is to be hoped that proper protection will be given to this immense breeding ground of these birds, and that the government will make a "Game Preserve" of it. In a few years, there is sure to be an influx of sportsmen in that region, and certain points at "proper seasons"

could be rented and yield considerable revenue.

Larger game is also to be found in that same region. We saw some caribou and their tracks frequently.

Polar bears ar common. We saw as many as five in one day, all going in the same direction. They apparently get on the ice in the northern portion of Hudson Bay and drift south with it. Then in July and August, as the case may be, the ice melts and breaks up and they are forced to make the coast line by swimming, and work back north again by following the shore. Along the rivers, or inland, eight or ten miles from the sea shore there are some wooded sections, where black bears appear to be common. We saw some of their tracks occasionally. Not being in want of meat we made no attempt to secure any large game. Our canoe was too much combered with our fishing gear and baggage to burden ourselves with such a weight, and there was no sport in wanton killing. In October and later on in the fall and winter, this fringe of wood, a considerable part of which is willow, swarms with ptarmigan. Around Port Nelson several thousand were killed last winter. Like most other good things, this "sportsman's paridise" has its drawbacks. It is difficult of access, walking soft and bad, a nasty coast to travel along either in boats or canoes. Low and marshy camping grounds, with no fuel except drift wood, and you can go miles sometimes without finding any. We used to carry a small supply in our canoe as we went along and found it very useful. It is also a wise precaution to select the highest ridges, as being somewhat drier, for a camping place, and also to avoid occasional high tides. These may come without any warning, you may wake up in the night with water all around. They are due to strong northerly winds in the bay, driving and piling up the water on these long mud flats, with no chance for an undertow, consequently the waters rise several feet above their ordinary level, varying with the strength of the gale and state of the moon. If one happens to be obliged to ground on these shoals with a falling tide, it is very risky and unwise to leave the canoe and walk ashore to build or cook a meal. The tide comes in so quickly that it may be impossible to reach the canoe in time. We saw two accidents of this kind, while we were on that coast, and it happened to trappers, and all their kit was lost.

Harbors.

As already referred to, there are no harbors or shelter to be had, except for very small boats, between Fort Churchill and the Nelson river, and from there south to the Severn, where a light draught vessel may enter at rising tide, while further south to James Bay it appears to be the same low lands and shallow water for miles out. This will practically prevent any fishing being ever done on that coast line with sailing vessels, supposing the fish were there for it. I noticed that the government were thoroughly alive to the necessity of having the approaches to that low and dangerous coast rendered safer, and that steps had been taken to light the entrance of the Nelson. Although this does not exactly come under the object of my trip to Hudson Bay, I would beg to offer the following suggestions and trust they may be of some use to the department.

While I was there I was informed that one pole light was to be placed on the highest portion of the Nelson shoal just off the Stoney river, another on Cape Tatnam. These lights will undoubtedly be of some use, but I do not believe adequate. During the summer season these flats and low marshy shores, are always more or less covered with mist or haze towards night, or early in the morning, which disappears with the rise and heat of the sun, so that many times they would be invisible even at a short distance. It must also be borne in mind, that there still remains outside of these two points several miles of shallow water. In my opinion the only safe way for lighting that route when it will be open for commerce, will be to have two good lightships, with suitable fog alarms placed outside of the above twenty-five miles off that shore. These lightships could be safely wintered at Port Nelson and put in commission early in the season, fully two weeks before any vessel could enter the bay. Under existing conditions the wireless apparatus placed on vessels, is not of much use except to communicate with each other, but on the supposition of their not being able to do that in a case of need, the vessel would be perfectly helpless. It would therefore be important to have two or three stations along the straits, say one at, or near, Port Burwell, one at Erik cove, and possibly one on Coutts Island. They would be invaluable aids to the vessels coming in early or going out late in the fall, by giving information of the ice conditions, and under this head I will now give our own observations.

Ice Conditions.

The first ice we observed was near Point Amour and gradually increased in quantity with a few icebergs here and there until we got off Battle Harbour, when we met packed ice. We were then about sixty miles off shore. From this last point to Hudson strait, it was apparently one continuous belt of ice, with small patches and lanes of open water here and there on its outer edge. We made an attempt to keep outside of it as much as possible and estimated that we were, at certain points, fully one hundred and seventy-five miles from land. Off Cape Mugford we got within thirty miles of land, and finding the same conditions headed out again for more open water, and kept fifty to sixty miles off until we neared the straits. About half way across the straits we came to open water and from there to Resolution Island and further northeast there was apparently no ice. This was on July 31. On August 1 we went over the same course, and found no ice again, so that we had probably reached the end of the long strip of drift ice coming from the coast north of Hudson strait. In the straits the ice seemed to drift out all the time on the south side, while on the north it was affected more regularly by the tides and moved in and out, but the main direction was in. We observed this by our own drift and that of many icebergs, which moved up the straits as far as Big Island. Beyond this point we did not see any bergs, but close in towards the land the influence of the flood was still felt. Near Charles Island there was a strong ebb tide when we passed there at 6 p.m., August 8. We judged it was running at about 2½ knots an hour. From Big Island inwards, up to near Mansel Island, we passed some patches of very heavy ice, much of it dirty, discolored with mud and stones. At some time during the past winter it had been subject to great pressure near the land, because it was piled up in layers, showing the same discoloration. It was evidently old ice that had been drifting around since the previous year or longer. In Hudson Bay itself we met very little ice until we reached about sixty miles from Cape Tatnam. Here there was a patch of small broken-up ice of the past winter's formation, with occasionally here and there some heavy pans twenty to thirty feet thick. We were informed later that this patch was over one hundred and fifty miles long. It was not heavy en-

ough to impede any good steamer. From the time we left Resolution Island until we reached the western end of the straits, we were mostly on the north side of it, and owing to the prevailing winds being from that direction we escaped much of the heavy ice that was encountered by other vessels that were on the south side. We were never at any time subject to any pressure that would have damaged any ordinary vessel. All the hard knocks and the little damage that we received was had through reckless sailing and mistakes. We were held up several times, for more or less long spells in the ice, until a change of wind or tide would release us. A large quantity of the ice that we saw along the north side of the straits, was last winter's formation, moving out of the innumerable bays and passages among the islands of that coast. It had never been rafted or subject to pressure because the edges were intact and the snow had not even been disturbed on it. Probably had we been there a week or two earlier it would have been found fast to the land. We were told that sledging with dog teams had been kept up on the bays of the south side until the end of July. All this goes to prove that the season of 1914 was an unusually late one as far as navigation was concerned in Hudson straits. Such conditions I believe will always be found to follow mild and open falls, which release large quantities of heavy ice in the Fox channel and elsewhere. This drifts down and is caught with the fresh formed ice of the winter and finds its way out in the following spring. We saw no field ice at all, perhaps because we were there late, or else it may not have had a chance of forming owing to the strong gales on this large expanse of water, which breaks it up. Strongly built ice patrol boats, fitted with wireless apparatus, would render immense service to shipping, when that route will be opened to commerce. To guard against loss of life and property as much as possible, no vessel should be sent to Hudson Bay without a wireless installation, otherwise if wrecked they might be weeks or months before obtaining any assistance, especially if it happened to be in some out of the way place.

All the time I was on the Burleigh we did not experience any very heavy gales, much less than I expected in that region. I presume this was due to the late season at which we were there. We had much worse weather in September on our canoe trips, and several frosty nights, but no ice worth mentioning had yet formed up to the time we left (September 27th), and we had only one light snowfall. Going out October 1st we observed considerable patches of fresh snow on the mountains, but none on the low lands.

SOME EXPERIMENTS ON THE FREEZING AND THAWING OF LIVE FISH

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(Marine Biology Report.)

The fishermen of the Bay of Fundy say that if, in very cold weather, a herring be thrown out on the ground and frozen so that it is apparently quite stiff, when thrown back into the water, it will swim off as soon as it thaws out again.

The following experiments were performed at St. Andrews, N.B., at the Marine Biological Station, summer of 1913, to determine how low a temperature fish will stand and for what length of time they will survive such a temperature.

Methods.

For the experiments the species "Fundulus heteroclitus" (the common mummichog) was used. They were easy to obtain in tide pools about St. Audrews. They are of convenient size for experiments and are wonderfully hardy: they are easily kept for several weeks in a tank, and were found to survive sudden changes of temperature much better than any other fish used.

In the experiments a large carbide-tin was covered with felt and used as a refrigerator.

Results.

Experiment I.—A dozen fish were put into sea water at 6 deg. C. and the jar was lowered into the freezing mixture. The following table gives the results:—

Time.	Temperature.	Behaviour of Fish.
9.20	6 deg. C.	—All are swimming about in lively manner.
9.25	3 "	—All are swimming about in lively manner.
9.32	0 "	—2 have fallen over on side—All seem to gasp for breath.
9.45	−1½ "	—All have stopped breathing and are apparently dead. Took one out and put in water at 12.5 deg. By 9.50 it was breathing and swimming a little. It recovered completely and lived for weeks.
9.52	−2 1-3 "	—
10.03	−3 "	—
10.10	−3.5 "	—Took another out. It seems frozen stiff. Has a thin sheet of ice on it. Put into water at 21.5 deg. Did not recover.
10.15	−3.5 "	—All taken out and put into water at 12.5 deg. None recovered.

Experiment II.—Put 3 directly from tank (temp. 12 deg. C.) into water at −3.5 deg. C. Time 10.28 a.m.

At 10.33 took one out and put it into water at 13 deg. C. At 10.39 it moved its gills and breathed for a time. Later it died, bleeding at the gills. 10.39, took other 2 out. They did not move their gills or recover.

Experiment III.—Put 3 into a temperature of +1 deg. C.

Time.	Temperature.	Behaviour of Fish.
11.30	1 deg. C.	—They lay on their sides in about 1 minute, but continued to breathe.
11.35	½ "	—Took one out. It at once swam around, so put it back.

11.50 –½ " —They seem to be getting used to it, and swim a little now and then. Still on their sides, however, and breathe very slowly.
12.00 –1 " —No sign of life. Took one out, and it came to life at once.
12.10 –1 " —Took one out. Put into water at 12 deg. C. Began to breathe in less than one minute and recovered completely.
12.30 –1 " —Took other two out. They were dead.

Experiment IV.—Done under the conditions that would exist according to the stories the fishermen tell. Put 4 fish from water at 2 deg. C. into dry jar at –15½ deg. C.

Time. Temperature. Behaviour of Fish.
5.50 –15 deg. C.—Put in 4 fish.
6.00 –15 " —Put in to water at 0 deg. C. Complete recovery. It was apparently frozen stiff, like a piece of ice on the outside.
6.05 –15 " —Took another out. It breathed, but never completely recovered.
6.08 –15 " —Took another out. It was found to be dead.
6.09 –15 " —Took another out. It was found to be dead.

Experiment V.—Put 8 fish into water at –4 deg. C. and left five minutes. All seemed stiff. Took all out, and put six into warm water.

Cut sections through the other two. Flesh was stiff but seemed to have no ice crystals in it. The viscera were quite soft.

The six recovered completely.

Experiment VI.—Ten fish were packed in lumps of ice in a dish so that the water drained off. They were put in refrigerator. Temperature 3 deg. C. at 4 p.m.

At 8 a.m. the next day one was taken out and put into warm water. It recovered completely in less than one minute, and lived for days. The rest put back in refrigerator.

At 4 p.m. they were taken out and all recovered completely.

This experiment was not carried any further.

Conclusions.

From Experiments I, II, and III it is seen that the fish will not survive for any length of time a temperature of –1 deg. C. or lower.

The lower the temperature the shorter the time they will survive.

In experiment III the fish lived for 25 minutes at –1 deg. C.

In experiment II the fish lived for six minutes at –3½ deg. C.

At 0 deg. C. and without water they survived for 24 hours, and were in good condition at the end of that time.

Further experiments would be useful in solving the problem of shipments of live fish.

The fishermen's accounts are evidently partly true. Experiment IV. shows that even when apparently frozen stiff they recover on being warmed, if the exposure be not for too long a time.

One withstood a temperature of –15 deg. C. for 10 minutes, but 15 minutes proved fatal.

It seems (Exp. V.) that even when apparently frozen stiff the viscera are not frozen at all. The body is covered with an ice coating as the water adhering to the fish freezes.

The flesh may even be quite stiff also, but there does not seem to be any freezing of the blood or flesh, but only a stiffening due to the low temperature.

JAPAN, A NATION OF FISHERMEN.

Government Takes Active Interest in Pursuit of Goodly Proposition of the Pledges.

Japan is said to be the leading fishing nation, not in the actual value of its fish products, for in that respect several other nations excel it, but in the number of persons who make their living by fishing, in the proportion of fishers to the rest of the population, in the relative importance of fisheries in the domestic economy, in the ingenuity and skill of the people in devising fishing apparatus, in preparing fish and in the zeal shown by the government in promoting the interests of the fishing population.

The islands comprising Japan stretch diagonally from northeast to southwest, between two and three thousand miles, giving a great range of climate, and consequently of waters from almost tropical to almost arctic. The islands are for the most part long and narrow and at no part is the interior too far from the sea to allow of the easy transportation of fresh fish. Within a few miles of the coast in many places are deep parts of the sea in which breed inexhaustible supplies of deep sea fish, while the bank and top feeding sorts swarm about the shores in countless schools.

It is estimated that one person in twenty in the entire empire is more or less of a fisherman, and fish appear in some form on the table of every Japanese family daily, if not at every meal. The annual value of water products is in excess of $30,000,000. Half a million boats are engaged in fishing, of which 18,000 are more than thirty feet. Almost a million men are professional fishermen, and 1,400,000 more give part of their time to fishing and the rest to farming or other pursuits. Only about 200,000 men are, it appears, so employed in the United States.

A thousand species of fish have already been identified in Japanese waters, and almost every one of them is edible. One of the commonest, most wholesome and most sought after is the shark, which the western people have never learned to eat, but which a fishery expert of this government who has visited Japan pronounces excellent. Dogfish, the common member of the shark family along the north Atlantic coast, would never be permitted to go uncaught in Japan. Even the octopus is a table delicacy there.

Much fish is eaten raw by the Japanese, a fact that is said to be much more easily understood by Americans after they have tried raw mackerel or other fish dipped in the delicious sauces the Japanese employ in his relation.

The prominence of Japanese fisheries is due to the encouragement of the government. Officials have been sent to the United States as well as to Europe to study the methods in vogue, and there is at Tokio an imperial fisheries institute, a school with which no other in the world can compare.—Washington Star.

OYSTER FARMING IN PRINCE EDWARD ISLAND

(Special Correspondence)

Oyster farming or artificial cultivation of a bivalve far famed for its flavor, is now entering upon its third season in Prince Edward Island on what might be called an extensive scale, although such cultivation has been carried on by a few individuals, in a limited way, but with very profitable results, for a number of years.

For years oyster fshing has been one of our most important industries. Statistics showing the annual catch are available as far back as 1859. There was a steady advance in the output up to 1882, the increase during the five years previous being very marked, until the high water mark, 57,000 barrels, was touched in that year. Then the tide turned and each subsequent year has witnessed a gradual decline, the total for 1914 dropping to 10,000 barrels. This year the output will be still less.

That the oyster has flourished for a long period of years in Island waters has been amply proved. The Dominion Commission of 1887, after a thorough investigation, reported that they had found evidence of vast oyster beds. In fact in many parts of the Island great quantities of decayed shells, mixed with mud, commonly known as mussel or oyster mud, have been dredged every winter and used as fertilizer by the farmers. A dredge built by the Provincial Government, and designed to operate at any season is now at work at St. Peters Bay, where the valuable oyster mud is being loaded on cars and shipped to all parts of the province.

The decline of the fishing may be traced in a measare to the disturbance of the beds by the removal of live oysters during the digging of mud, the smothering of oysters by the deposit of silt from streams, a condition extended by the cutting away of forests, the lack of effective regulations and protection, the lack of knowledge on the part of the fishermen, who seemed oblivious to the consequences of over-fishing, the yearly sacrifice of immature and spat oysters, and the destruction wrought by the star fish.

The action of the Government in prohibiting winter and spring fishing and shortening the full season meant a slowing down of the backward progress, but did not replenish the beds.

The proposition that beds be leased by the Provincial Government was frequently considered, but owing to a disagreement between the Federal and Dominion Governments respecting their relative jurisdictions as to ownership and control, little progress was made. In 1911 an agreement was arrived at between the Island and the Dominion, and in 1912 a greatly improved system of regulations was introduced, designed to restore the lost productiveness of the fisheries.

The provision for oyster culture was the great feature of these regulations, which also fixed the close season and the maximum size of oysters which could be taken in existing beds. Under the new system, areas of sea bottom suitable for oyster culture were surveyed into five acre lots, and these leased to residents of the Island for a period of years. These areas are known are barren bottoms, which were either bare of oysters or contained so few that the fishermen could not make a living on them. Natural oyster areas exist in almost all the bays and tidal rivers, and the new system will be applied to these. Up to the middle of June this year about 60,000 acres had been surveyed and charted, and 5,000 acres taken up in leases.

Since the year opened, surveys were continued in the western part of the Island, also in Hillsborough Bay in the south. The rivers generally are nearly all reserved, only small areas of bottom being available for leasing, and only a few rivers have as yet been surveyed.

Gasolene Dredge for Planting Oysters, Placing Cultch, etc.

The most coveted territory is Richmond Bay, the home of the celebrated Malpeques of rare flavor, which command the highest prices in America. This bay, once so rich, became sadly depleted, but it is now in a fair way of being restored to its former fertility. 30,000 acres in this bay have been surveyed, and half reserved for public beds. Of the 15,000 acres remaining, 3,000 have been leased for a term of twenty years, with the privilege of renewal. The rental is one dollar an acre for the first five years, three dollars for the succeeding five years, and five dollars for the following ten years. During the past three sessions of the Legislature fourteen companies have been incorporated to carry on oyster culture, with an aggregate capital of $1,300,000. At present six companies are in active operation, all in Richmond Bay.

The work so far has consisted mainly in clearing and preparing the ground, laying down cultch, consisting of gravel and shells from barren beds set aside by the Government for that purpose, and in some places from twent to thirty feet deep. In the fall the planting of seed oysters was carried on. At this season of the year, the ground is being cleared of debris, such as floating seaweed, etc., and the cultch is being prepared for the spatting season which begins the last of August.

brought here by the Government, did not recommend the importation of these, but advocated using the Island oysters for planting. The companies are therefore procuring this year as many as possible from the fishermen operating on the public beds. According to the regulations these oysters must be of a certain size before being sold. Hence it is difficult to get a very large number for planting. It would seem advisable to reduce the size limit for the purpose of stocking new ground. Dr. Nelson declared that the chief value of the public beds was as a source of supplying seed. In this way by allowing the fishermen to take smaller oysters, which they could sell to the planters, more remunerative work would be afforded them than under present conditions, where so many oysters are below size. It would be more profitable to leave the adult oysters on the public beds as breeders, and to sell the small oysters each year to the companies.

Planters who put out cultch last year have found that a good set was obtained in different localities, owing to the spat drifting from the public beds onto the private beds. Of course the large oysters have also yielded a good supply of spat.

Oyster farming, now in its infancy, abounds in profitable possibilities. The initial expenditure is heavy, the larger companies having spent from $25,000 to $30,-

Three Prominent Oyster Culturists Handling the Famous Malpeques.

A number of important appliances are being used for the various operations. Two companies have now special dredges imported from Rhode Island for the purpose of gathering cultch and later catching the oyster, thus replacing the old method of fishing by tongs, which has been in use for fully sixty years.

How to secure a supply of oysters for the beds as breeders or as seed, was the problem facing the planters. In 1913 one company purchased in the spring a number of four year old oysters in the United States, placed them on the beds and sold them in the fall, after they had made some additional growth. But the experiment did not prove a success, as the flavor was not equal to that of our Island oysters. About 3,000 barrels of young seed oysters also were imported from the States, but Dr. Julius Nelson, the expert from New Brunswick, New Jersey, who addressed meetings throughout the Island last summer, and who was

000, but as an oyster is of marketable size when from three to four years old, the planters have not long to wait for returns. It is estimated that one acre of good spatting ground, which has been properly set with five hundred bushels of shell or other cultch, which have taken a good spat, will in its second year produce 15,000 bushels of seed oysters, and these are sufficient to seed five acres. Well established oyster bottom should produce annually about two hundred battels of marketable oyster per acre. The price for the best quality of oysters, and that means the Malpeques, whether taken from public or private beds, last year ranged from $8.00 to $14.00. The latter price, however, has been a special price paid for very choice "cups" by one of the clubs in Montreal. Last year several hundred barrels were shipped from cultivated beds. These of course were about two years old when planted. That oyster farming is past the experimental stage is proved

by the fact that one of the oyster growers last year had his ground overstocked with spat and had 1,000 bushels of seed oysters to place on the market.

The Government this season will continue the work of sweeping the beds of star fish, and is at present considering a plan for assisting private owners in the protection of their holdings.

Last year the Biological Board had an expert in Richmond Bay, Professor A. W. Robertson, M. A., of Toronto University, taking observations of the temperature, density,currents, of the time that larvae are floating and of the time when spat is ready to set. Mr. Robertson is continuing his work this summer. The most pratical benefit which has so far been derived is fixing the proper time at which to set our cultch. Numerous spat collections were placed last fall by private parties as well as by Professor Robertson, in different portions of the bays and rivers, to ascertain the best places for spat collecting. The same experiment will be continued this year on a larger scale, also experiments on the growth of oysters during the season.

The new system of private culture met with some opposition at first on the part of the public fishermen, who looked upon it as endangering their source of livlihood. The companies on the other hand, will need to employ fishermen at good wages; the public beds will steadily become richer by the spat from the cultivated bottoms, whilst the building and operating of boats and preparing and planting of bottoms will add to the industrial and commercial activity of the vicinity.

Almost all of the oysters sold last year came from the public beds. They were the long flat, river oyster, and brought from $4.00 to $6.00 per barrel, in the markets of Quebec, Sydney and other parts.

The close season for the publi cbeds is from January 1st to September 30th, but private owners can operate all the year, with the exception of the months of July and August.

Illustration No. 1 in this article shows a quantity of oysters on board, one of the gasolene dredges, imported from Rhode Island. No. 2 shows three of the shareholders of the Standard Oyster Company, handling specimens of "Malpequer." The man in his shirt sleeves is Capt. Inman of Summerside, the most successful oyster culturist on the Island, who has been in the business for a number of years. In the centre is Mayor Bartlett of Charlottetown and the third is Capt. A. R. Brennan of Summerville. Inman and Brennan are at present on active military service.

The third illustration shows oystermen at work, with the old-fashioned tongs on the public beds in Richmond Bay.

Fishing on the Public Beds.

FISH IN OLDEN TIMES.

Fish, of course, are quite as nourishing as flesh meats, sometimes more so, and preserved fish most of all. They can also be kept for long periods. Thus it was the custom long ago to provision fortresses to a large extent with salted and dried fish, especially herrings and fish of the cod tribe. In the reign of Edward I., one finds that red herrings, dried cod, ling, and, in particular, stock-fish were stored in great quantities for the use of the troops, the higher ranks also consuming salmon, porpoises and lampreys. In the reign of Elizabeth the soldiers (as at Berwick-on-Tweed) were provided with all these fish. Stock-fish were provided on fifty-two Wednesdays (fasting days), "two meals and half service," the consumption being 300 stock-fish a day. Shetland lings were considered to be equal to two stock-fish, and they were provided on twenty-six Saturdays ,thirteen days in Lent and one day in Rogation Week. The Navy no less than the Army was provisioned with cured fish. One still finds in the records of the provisioning of the Henry Grace a Dieu, better known as the Great Harry, of which Henry VIII, was so proud, entries of barrels of fish, ling, cod, salmon, red herrings, white herrings (salted in barrels), and sprats. The men in the Navy got 2 lb. of beef on four days a week and on the other three days stock-fish and butter instead. These were the men who fought under Drake and smashed the power of Spain.

GERMAN SUBMARINE WARFARE ON BRITISH FISHERMEN

By COLIN McKAY.

Writing from London, Eng. Mr. Colin McKay, formerly New-Brunswick correspondent for the Canadian Fisherman, sends the following interesting article on the hazards run by British Fishermen at the present time:

In the days of old, when the navies of European nations were almost constantly at war, fishermen were, for the most part, allowed to pursue their arduous calling in peace. Even pirates, reckless and ruthless as they were, permitted defenceless fishermen to go about their business without molestation. But in these piping times of progress the gallant German navy, carefully keeping out of the way of British warships, is distinguishing itself by waging war on British fishermen, a kind of warfare that Capt. Widd and Blue Beard and other famous pirates would have scorned to wage. Since the first of June German submarines have been conducting an heroic campaign against the British fishing fleet, and doubtless the Iron cross factory in Germany has been working overtime to turn out decorations for the submarine commanders who have so valiantly attacked and vanquished the fishing vessels of perfidious Albion — not to say Scotland. In the first ten days of June the submarines of the bold German navy sank 28 British trawlers, and during the past week they have nobly sustained their glorious reputation, accounting for nearly a score of fishing craft.

Since the outbreak of the war over 100 fishing vessels have been sunk — not counting vessels taken over by the Admiralty and destroyed while employed in mine-sweeping operations or patrol duty. More recently Germany appears to have decided that one of the principal objects of her submarine navy is to make war on defenceless fishermen; at any rate there has recently been a great increase of activity against them. And many of these recent attacks upon fishermen have been carried out unscrupulously, with every sign of "frightfulness", as if the object of the Germans was to frighten the fishermen from the fishing grounds and break the spirit of the country by inflicting pecuniary losses. Of course the submarine pirates are causing serious loss to the fishing interests; the better class of fishing vessels have been taken over by the Admiralty, but the craft being sunk are with their equipment worth about £8,000 each. And of course, too, the depletion of the fishing fleet means a sortage in the supply of fish, and increased prices, a rather serious matter to the people of these Islands, who have long been great consumers of fish. But the German policy of submarine piracy and frightfulness is evidently not going to break the spirit of the fishermen; owners of fishing vessels are having difficulty in getting crews because the fishermen want to join the navy or army and have a go at the Germans. Suggestions are made that fishing vessels should be armed, but in view of the fact that there is evidently an urgent need for guns and ammunition fo rte harmy, this is hardly likely to be done —for the present at least.

Whatever may or can be done about it, British fishermen are up against a serious problem. The Admiralty is saying little, but the balances of losses in this remarkable naval warfare have been very much in favor of the British. At the same time Germany is supposed to be launching one or more submarines every week, and the raids on fishermen will probably be more disastrous in the future than in the past. The German warlords are evidently banking on the policy of frightfulness, and their submarine pirates will probably become more ruthless. Some submarine commanders are not without a decent regard for the amenities of civilization; they give the crew of a fishing vessel a chance to abandon their ship. In the last week or so they have sunk over a score of fishing vessels without causing loss of life. But there are submarine commanders who have absolutely no consideration for non-combatants; they torpedo a ship without warning, or they rise to the surface and open fire with their guns without warning.

It may be of interest to relate some of the stories of the submarine attacks upon defenceless fishermen.

The crew of the Hull trawler Bromio, sunk off Buchan Ness on Monday by a submarine, had an unenviable experience.

The trawler was on a voyage from Iceland with a catch of fish, which it was estimated would have realised £1500 on Tuesday's market. They were suddenly signalled to stop by a large submarine, which fired a shot at them. The submarine officers signalled them to leave their vessel and go aboard the submarine. Some of the trawler's crew said they felt sure this meant capture as prisoners of war. They stated that as their small boat approached the submarine a gun on the latter was pointed at them.

One of the fishermen humorously remarked — "It looked as if it were taking our photographs." As they got to the submarine an officer shouted at them — "Get aboard you British bitches." After the fishermen had got on the submarine some of the crew of the latter left in the trawler's boat and boarded the trawler. They blew the trawler up with a bomb, and on returning sent the Hull fishermen adrift in their boat. They were picked up after several hours in the boats by the steamer Drumloist, of London, and the Hull crew spoke in bitter terms of the German submarine crew.

The crew of the Hull trawler Dogberry were pulling for 20 hours in their boat after the submarine sank their vessel. "Two shots were fired at us by the submarine," said one of the crew, "and one crashed through the top of the bridge. After we escaped in our boat, which we did in a hurry, leaving everything we had behind, a party from the submarine put bombs aboard her and blew her up. We eventually landed at Kirkwall."

A similar experience befell the Bardolph, whose crew were landed by a trawler at Aberdeen. A submarine fired at them, and they took to their boat. The mate waved his shirt on a pole as a signal of distress, and this fortunately was observed.

Another outrage by German submarine pirates upon peaceful North Sea fishermen was reported at Grimsby recently, when the steam trawler Jurassic landed five men who had formed part of the crew of the Boston steam trawler Arctic. That vessel was sunk by shell fire by a German submarine, and her master, mate and two deck hands were killed. The Arctic had just about completed fishing and the gear was being hauled for the last time preparatory to starting for home.

The fishermen were all at the ship's side when suddenly a submarine rose to the surface a few hundred yards away. Without any warning she opened fire on the trawler. The first shot struck the skipper, Aaron Pesterfield, who was leaning on the ship's rail, and he toppled head foremost into the sea, a horrible spectacle to be witnessed by his son, who was standing on the deck a little further aft. The next shot struck the net, and instantly killed James Taylor and William Fuller, two deck hands who were engaged dragging the gear on board.

The rest of the crew raced aft to get the boat out, but even while they were so engaged another shot struck the Mate, William Mace, and killed him. Instantly the other five got into the boat, and as they pulled away they saw the Arctic reel and sink under the continuous bombardment from the submarine.

Theer was a haze on the water, and the small boat escaped. The men were adrift, hungry and distressed, for 12 hours being picked up by the Jurassie. All the four men killed were Boston men.

FIVE MINUTE'S GRACE

Another Grimsby trawler has been sunk by the Germans, the lost vessel being the Saturn, owned by the North Sea Steam Fishing Company, built about 15 years ago. The crew of nine were safely landed at North Shields on Tuesday night.

The Saturn left Grimsby on Saturday, and was changing its grounds at 1 o'clock on Monday afternoon when a submarine appeared on the port quarter. The master of the trawler (Capt. Parmenter) altered his course from south-west to west-north-west,but the submarine was too fast for him, and in response to its hoisted signal, plus a shot over the top of the trawler, he stopped. Some of the hands were dining when the enemy appeared, but they came quickly on deck on hearing what was up.

The submarine came alongside and gave the crew five minutes to clear off. The enemy vessel was the U-18. The officer in command, a young man, was fairly civil. Looking over the side into the ship's boat, he said to the skipper, "You've got a lot of water in your boat." The German officer went on board the trawler, took the papers, and after withdrawing, fired three shots into her port side, and she sank in half an hour.

The trawler hands were in the boat until 5 o'clock on Tuesday morning, when they were picked up by a patrol boat and brought to Shields.

LOSS OF THE EXPLORER.

The crew of the Aberdeen steam trawler Explorer arrived at Aberdeen on Monday evening and reported that their vessel had been sunk by a German submarine on Friday night.

The Explorer left Aberdeen on Friday morning for the Flagga fishing grounds. All went well until the evening, when they were about 7 miles north-east of Buchannes. A submarine was then seen some three miles astern making in their direction.

Skipper Wright at once realised the situation and ordered the boat to be made ready for launching. As the submarine approached two blank shots were fired, evidently as a signal to stop. The Explorer was hove to and the submarine approached within speaking distance. Eleven men, including the commander, could be seen on her deck.

The commander of the submarine shouted. "Launch your boat, get into her as quickly as possible, there is no time to lose." This order was promptly obeyed, and as the crew pulled away the submarine slowly circled round the trawler, and sent her to the bottom with six shots. She then made off. The crew of the Explorer were picked up about two hours later by a passing vessel. The following day they were transferred to another ship which landed them at Thurso on Sunday.

The Aberdeen trawler Shamrock arrived at Aberdeen on Sunday afternoon, having on board the crew of the local trawler Star of the West, which was sunk on Saturday night by a German submarine. One of the crew stated that the trawler was making for Aberdeen, and about 10 o'clock on Saturday night, while off Peterhead, a German submarine fired a shot over her bows. The trawler pulled up, and the crew were ordered into their small boat. The commander of the submarine refused permission for the crew to return for a compass. The submarine afterwards fired two shots into the hull, and the trawler sank. The crew have lost all their belongings. They were afloat for about ten hours before being picked up.

GERMAN GUNNERY.

The Grimsby steam trawler Nottingham, belonging to the Consolidated S.F. and I. Co., has been sunk by a German submarine in the North Sea, shell fire being utilised to destroy her. The crew were landed at Grimsby on Tuesday by the tug Galatia, which received them from the trawler. Onward, the last mentioned vessel havink picked up the men from an open boat at sea.

According to the Chief Engineer W. Weston, the Nottingham was fishing 60 miles from Hornsea at 8 o'clock yesterday morning when heavy firing was heard. Thinking it was from warships at practice, they took no notice, and at 10 o'clock they prepared to shoot their gear. While carrying out this operation the skipper shouted out — "There's a submarine," and, on looking round, the crew saw a German craft not more than a hundred yards away.

The submarine hoisted a white flag with a cross in the centre, and underneath it the signal flags "E, E." Skipper Hammond looked up the signal code book and found the signal to mean "Do you abandon?" and he signalled back the one word "Yes". Not knowing, of course, what the submarine was about to do, the crew immediately launched the boat and drew away from the ship. The submarine then opened fire on her. The shelling went on for half an hour, 23 shots being fired at her before she filled and sank. Not a word was spoken between the crews of the two vessels during the whole time, the only communication being by signal.

Rowing towards land, the crew of the Nottingham fell in with the Onward an hour later. The Onward had heard of the operations of a submairne, and this had caused the skipper to make for port without loss of time, or without taking any unnecessary risk.

NARROW ESCAPE OF CREW

Further evidence of German submarine activity in the North Sea was forthcoming on Thursday, when the steam trawler Vulture returned to Grimsby and landed the crew of the steam trawler Cardiff of the same port.

Skipper George Hillam, master of the Cardiff, was fishing at 3.30 on Wednesday morning when he sighted a submarine. There were three other vessels trawling

to the west-ward, and one away east of him, and with some idea of affording them a chance of escape he set off at full speed to lure the submarine away from the others. The German commander, irritated at the trawler's attempt to escape, opened fire. The first shot carried away the fishing ball. Two others struck the ship, while the fourth, a shell, exploded in the engine room and sank the ship.

While the bombardment was in progress the fishermen were busy getting out their lifeboat, and they got it afloat and tumbled into its as the Cardiff sank.

The German commander was so angry at having had to pursue the ship that he trained his gun on the small boat and the fishermen thought he was going to shell them, but he evidently thought better of it and went after the trawlers west-ward. Skipper Hillam believes that he overtook them and sunk them. All the crew of the Cardiff were adrift without food or water for 21 hours before being rescued.

And, even from the heavens, the hate of the Germans vents itself on defendless fishermen. Recently a Zeppelin sank three British fishing vessels in the North sea.

The incidents quoted give an idea of what the British fishermen are up against in pursueing their calling. Instead of frightening them, however, the German submarine policy is only adding to the strength of the British Navy. These daily attacks have the effect of stimulating recruiting and hundreds of fishermen have much to be thankful for in being able to fish without danger from such ruthless piracy.

WHO'S WHO IN THE FISHING WORLD

THE SMITHS' OF NOVA SCOTIA

Everybody knows that Lunenberg, Nova Scotia, is one of Canada's greatest fishing centres. Nevertheless the visitor is generally taken by surprise when he is fortunate enough to observe the splendid fishing fleet sailing out for the Banks in spring, or to see the brave return in the autumn. He then, probably for the first time, realizes how Lunenburg has attained her distinction.

The Lunenberg fishing fleet numbers 180 vessels with combined crews to the number of 2,880 men. The annual harvest of the sea is valued at one and a quarter million dollars. The distribution of this sum every year means that money is never scarce in this town. Indeed Lunenburg has more money in the Savings Bank, per head of population, than any other town in Eastern Canada. The soil in the neighborhood is fertile but farming is not extensively carried on. Everey-body is in the fish business.

One of the largest fish firms in the town is W. C. Smith and Company Limitew, dealers in fish, fishing supplies, produce and provisions. Mr. W. C. Smith, the president and managing director, was until 1898 engaged in the industry as captain of one of the crack fishing craft sailing out of Lunenburg. For sixteen years he followed the sea and the elusive cod, and in those years he obtained a practical insight into the fish industry such as very few fish dealers possess. In 1898 his business was incorporated as a joint stock company, four of his brothers and a few intimate friends being included in the concern.

Mr. Smith has found time to study conditions in the fish business throughout Northern America, and his observations abroad, together with his very intimate knowledge of the Nova Scotia fish trade, renders him to-day one of the recognized authorities in his line. He is a thorough believer in advertising and in technical education for fishermen.

"It seems to me," said he, "that the world is just beginning to realize the value of fish as one of the most wholesome of foods for mankind. We here in Nova Scotia are admirably situated for supplying the increased demand that should follow the spread of such an idea. It is my opinion that free public lectures by competent men would be of decided benefit. Folk are always interested in what they eat, you know, no matter what the highbrows say, and plain talks in different centres by an expert who has the gift of interesting an audience could not fail to be beneficial. Moreover, I believe that concerted and systematic advertising of specific fish products would also have not only a direct but a cumulative effect of certain value. However, any form of advertising will prove unproductive of the best results unless the fisherman is thoroughly taught how to prepare his products for the market. Technical education for the fishermen is one of the important industrial movements of the times."

Mr. Smith is keenly interested in the matter of better packages for pickled fish and the enforcement of the Inspection Act. "This would mean," said he, "that the fisherman would have to pay more for the regulation barrel, but for this extra outlay he would be more than sufficiently compensated by the higher prices he would receive for his fish. These are some of the matters that no doubt the Canadian Fisheries Association will take up. In my opinion that organization will do much not only in the way of bringing the fish industry prominently before the people of Canada, but also in placing the industry on a level with the other important industries of the Dominion."

Mr. Smith is a native of Lunenburg, having been born here on May 4, 1858. He is therefore fifty-seven years young. His wife was a Miss Whynacht of Lower La Have. He is a valued member of the Masonic Order and the Order of Foresters. In religion he is an adherent of the Church of England and in politics he is a conservative. His principle recreation is motoring, of which he is a well-known enthusiast.

He has identified himself with all the movements looking forward towards the improvement of his native town. He is financially interested in several local industries, such as the Lunenburg Foundry Company, and also in Marine Insurance Companies.

In reply to a query as to now the war had affected his trade, Mr. Smith said: "It of course costs more now to get our fish to market. Freight rates have gone up. There is an extra war risk to be paid on freight, and insurance on vessels costs more. Moreover the workers are demanding higher wages and all kinds of supplies for fishing craft have gone up in price.

"By the way," said he, "you don't want my views on the strategy of the war, do you?"

"The strategy of the war?" echoed the writer.

"Yes", said he gravely. "You see I was once Sergeant of Number One Company of the old 75th regiment."

But there was an unmistakable twinkle in his eye.

* * * * *

The old established firm of N. and M. Smith, Limited of Halifax, with its branch, Smith Company, Limited of St. Johns, Newfoundland, needs no introduction to the fish men of Canada. The present head of the firm, Mr. Howard H. Smith, the son of the late Mr. M. Smith, entered the business about twenty-five years ago. Up to that time the firm handled pickled and dry fish in a small way. The entrance of Mr. H. H. Smith, was, however, signalized in due course by the adoption of more efficient methods, with the result that the business gradually enlarged until the firm became one of the largest fish exporting houses in the world.

Mr. Smith holds strong views on the subject of the

Captain Willian C. Smith

methods in vogue among the fishermen in handling their product. "To many of our fishermen," said he, "particularly our inshore fishermen, are old fashioned, narrow-minded and in fact ignorant of fundamental principle connected with their calling. In many cases no improvements have taken place since my boyhood days in their mode of putting up their catch. And the pity of it is that the children of today will follow in their father's footsteps unless some effective measures are adopted.

"Take for instance the codfish. The cod taken by the inshore workers are pickle cured, heavily salted and improperly dried. The result is that the catch must be disposed of in the West Indies where the requirements of the consumer are not very exacting. But if intelligent methods of curing and packing were followed there is absolutely no doubt that the product could command half the world for a market.

"Equally slip-shod methods prevail in the mackerel portion of the inshore industry. The inshore mackerel is, I am compelled to say, for the most part ignorantly handled, being improperly cured and badly packed in inferior barrels. What is the result? Well, the mackerel sells at one-half the price that the Norwegians receive for their mackerel of similar quality.

"The herring receive no better treatment. The methods of curing in many instances tend actually to the destruction of the flavour. The fact of the matter is that practically all the fish delivered to the expor-

Mr. Howard H. Smith

ters reflect no credit whatever upon the handlers and that is putting it very midly. With up-to-date methods the returns to our fishermen would be increased anywhere from twenty-five per cent to forty per cent.

"What is the use of keeping silence about these matters? In my opinion it is far better to speak right out loud, so that a remedy may be sought for and found. I know a little about what has been done in Europe in the way of technical education for fishermen. But, of course, in considering the question of schools for fishermen we must remember that the fishing industry of Great Britain, Denmark, Belgium and Holland is on quite a different basis from that in Nova Scotia.

In these countries practically all of the fish are taken by steam trawlers. The individual fisherman who catches fish with a handline, cod-trap or line trawl has for the most part disappeared and small crews of fishermen in sailing vessels which are so common in Nova Scotia, Newfoundland and Labrador, are for the most part engaged in fishing for herring, mackerel, etc., abroad. There are over twenty schools in England where the young fisherman can receive special training in his line.

"I don't know that much would be gained by trying to teach our old salts. They cling to custom with the tenacity of a barnacle to an old ship. The younger generation must be the factors used in the regeneration of our most profitable industry. At least half a dozen experts appointed for life should be travelling around continuously amongst these people demonstrating modern methods right before their eyes illustrating the difference between good and bad cure, and showing them a thousand and one ways of improving their work. The young folk would be interested without a doubt. To my mind technical education or, at all events, some special training for the fisherman's children is absolutely necessary if the best interests of the Canadian fishing industry are to be safeguarded."

Asked for suggestions as to the best means of interesting the public in fish as a diet, M. Smith said: "I advocate having a demonstration dining room with a menu of fish only at all Dominion and Provincial exhibitions with attractive surroundings. I am sure that the diner would be surprised and delighted at the numerous tasteful ways in which the various varieties of fish can be served. The ordinary salt cod for instance, could be cooked in at least twenty different ways and each visitor might be given a free book of recipes showing exactly hwo that is done. Similar demonstrations could be given the preparation of herring, mackerel and the other staple fish."

Mr. Smith favors the introduction of the steam trawler. "I talk steam trawling for all I am worth," said he. "Steam trawlers would revolutionize not only the catching but also the methods of curing, and would make the fisheries of this country one of the foremost industries in America.

"The war has not affected our business adversely," he said in response to a query. "There was at fist some dislocation of trade but this was due principally to financial conditions."

Mr. Smith's views are by no means theoretical. His clear-cut ideas are based on a sound knowledge obtained at first hand of actual conditions both at home and abroad. He is an energetic exponent of needed reform in the fish trade and his straight talk direct from the shoulder is refreshing. His broad outlook on life, free from narrow partizanship is illustrated by his characteristic reply to a query as to what religious body he claims adherence:

"I believe in God and in the Golden Rule."

FAST TIMES MADE BY G. T. P. STEAMSHIPS.

The Grand Trunk Pacific Railway has cut the running time between Vancouver and Prince Rupert by their steamships Prince Rupert and Prince George from 33 hours to 30½ hours. This is the fastest schedule yet made by any ships between these points. The distance is 482 nautical miles the average run per hour therefore being about 16 miles.

FISH CULTURE IN CANADA.

Artificial Propagation Necessary for Re-stocking Our Inland Lakes.

Artificial fish culture is necessary in connection with some of Canada's best food and game fishes. This is due in the first place to over-fishing. Then many of the feeding and spawning grounds in the lakes and rivers have been ruined by the careless deposition of industrial and other wastes. These conditions apply with especial force to such lake species as the whitefish, one of the finest of the food fishes. In 1915, approximately 281 million whitefish fry were distributed in the Great lakes. During the present season three new hatcheries are in operation. One of these, situated near Kenora, Ontario, was designed for the propation of whitefish and has a capacity of 70 million eggs. A second, at Thurlow, near Belleville, Ontario, replaces a smaller one that had been in operation in former years at Newcastle. It will accommodate eight million salmon trout and over 60 million whitefish, and the third, in Qu'Appelle Park, has a capacity of 50 million eggs. The Kenora hatchery, however, will be used for pickerel as well as whitefish, although the latter will be the fish chiefly handled, the fry being used in stocking the waters in the Lake of the Woods district.

The Government is to be commended for assisting so materially in the maintenance of Canada's fresh water fisheries. These have an annual value of about $4,000,000 and, if wisely conserved, are capable of great expansion. Besides, in districts such as the Lake of the Woods region, keeping the waters stocked with game and food fish will serve to further enhance their value as tourist resorts. Canada is certain to be visited by an ever-increasing number of tourists within the next few years, and her fame as a "sportsman's paradise" will do much to increase the number.—A. D.

NOURISHMENT OF DRIED FISH.

It was stated a short tome ago that the municipal authorities of Berlin had laid in a store of 600,000 cwt. of dried codfish, obtained, no doubt, principally from Norway, and that it was a very nourishing food. So it is. All fish and flesh consists chiefly of water, usually from 70 to over 80 per cent. If the water be removed, as is partly done in salting or smoking, and still more by drying, then of course the remainder has a much larger proportion of nutritive substance. Many chemical analyses have been made of various meats and fish, to show the composition; they differ a little, but not to the extent of obscuring the values. It was found that desiccated codfish, or fish meal, in which the water had been reduced to 15 per cent., had 1,465 "calories," or units of energy, per lb., and the highest of all was stock-fish, in which the water had been reduced to 13 per cent., and which yielded 1,505 "calories," or units of energy, per lb. Stock-fish is nowadays rarely, if ever, seen in this country, though formerly very common. It is as hard as a stick, and has to be broken up with a hammer. Fresh codfish, with all its water present (82 per cent.), yields only 310 "calories," or units of energy, per lb.—a very great difference. On the other hand, fat is practically absent from stock-fish or desiccated cod but if the Berlin authorities can add fat in some form as butter or lard, they will be able to provide a most nourishing meal in vast quantities, for it is easy to calculate the number of "calories," or units of energy, that can be furnished by the 600,000 cwt. of dried codfish.

—Fish Trade Gazette.

Wholesale Fish Prices, Montreal Markets

There is very little to say about the fish trade at present. It follows the general trend of business, quietness with no prospects of revival in sight. A fairly good turnover is taking place in fresh fish lines, when the prepared, salted and pickled lines are at a standstill. A few barrels of Pickled Salmon and Trout are the only moving lines.

Codfish, either dried or salted, are just starting to receive inquiries by the trade. The reports being of plentiful supplies, and demand for Dried Codfish for Southern markets being poor, reflect our prices, which are very low.

Fresh Gaspe Salmon has been selling at exceptionally low price this year. Halibut is the only fresh fish which is keeping in good demand, and at fairly high price.

Lakefish is good supply, except Dore, which will be scarce until next September.

Smoked Fish.

Haddies, 15 lb. boxes, new	per lb.	$ .07½
Haddies, 30 lb. boxes	per lb.	.07½
Haddies, boneless, 15 and 30 lb. boxes		.08½
Yar. Bloaters, 60 in box, Selected		1.25
Haddies, Fillets	per lb.	.10
St. John's Bloaters, 100 in a box		1.00
Kippered Herrings—Selected		1.40
Kippered Herrings—Other brands		1.25
Smoked Herrings—large size, per box		.18
Smoked Herrings—medium, per box		.20
Smoked Boneless Herrings, 10 lb. box		1.40
Ciscoe Herrings, a basket 15 lbs.		1.50
Smoked Eels		.12

Fresh Fish.

Halibut	per lb.	.11	.12
Haddock	per lb.	.04	.04½
Market Codfish	per lb.	.03½	.04
Steak Codfish	per lb.	.05	.05½
Carp	per lb.		.07
Perch	per lb.		.06
Lobsters, live	per lb.		.22
Lobsters, boiled	per lb.		.24
Dore	per lb.		.13
Pike	per lb.		.07
Gaspereaux	each		.03
Eastern Salmon	per lb.		.16
Western Salmon	per lb.		.14
Lake Trout	per lb.		.10
Whitefish	per lb.		.11
Blue Fish	per lb.		.15
Brook Trout	per lb.		.25
Eels	per lb.	.10	.09

Frozen Fish.

Salmon—Gaspe, large	per lb.		.14
Salmon—Red, Steel Heads	per lb.	.10	.11
Salmon—Red, Sockeyes	per lb.	.09	.10
Salmon—Red, Cohoes or Silvers, per lb.		.08	.08½
Halibut large and medium	per lb.	.09	.09½
Salmon Pale Qualla, dressed	per lb.	.07	.07½
Halibut, large and medium	per lb.	.09	.09½
Mackerel, Bloater	per lb.	.07½	.08
Herrings, medium, 50 lb. per 100 count			2.50
Haddock, medium and large	per lb.	.03½	.04
Market Codfish	per lb.	.03½	.04
Pollock	per lb.	.03	.03½
Tommy Cods	per lb.		
Smelts, extras 10, 20, 25	per lb.		
Smelts, medium to large	per lb.		.10
Smelts, small	per lb.		.06
Canadian Soles	per lb.		.07
Blue fish	per lb.	.15	.16
Striped Sea Bass, large	per lb.	.14	.15
Sea Trout	per lb.	.10	.10½
White fish, large	per lb.	.08½	.09
White fish, small Tulibees	per lb.	.06	.06½
Lake Trout, large and medium per lb.		.08½	.09
Dore, dressed or round	per lb.	.07½	.08
Eels	per lb.		.09
Pike, round	per lb.	.05½	.06
Eels	per lb.		.10
Shad, 3 lbs. each			.08
Frogs, 10 lbs. tins			.20

Pickled Fish.

Salmon, Labrador, Tierces, 300 lb.	20.00
Salmon, Labrador, Brls., 200 lb.	13.50
Salmon, B.C., brls.	12.00
Sea Trout, brls.	12.00
Sea Trout, half brls., halves	6.50
Mackerel, N.S., Brls. 200 lb.	12.00
Mackerel, N.S.,Hf. Brls. 100 lb.	6.50
Mackerel, N.S., Pails, 20 lb.	1.50
Herrings, Labrador, Brls.	6.00
Herrings, Nova Scotia, Brls.	6.00
Herrings, Nova Scotia, Half Brls.	3.50
Lake Trout, Half Brls.	6.00
Quebec Sardines, Brls.	6.00
Turbot, brls.	14.00
Herrings, imported, Hf. Brls.	8.50
Herrings, imported, kegs, each	1.35

Salt Dried & Prepared Fish.

No. 1 Green Cod, large, per barrel	7.00
No. 1 Green Cod, Medium, Brl.	6.00
No. 1 Green Cod, small, Brl.	5.00
No. 1 Green Cod, Haddock, medium, Brl.	5.00
No. 1 Green Cod, Pollock, medium, Brl.	5.00
No. 1 Green Cod, Hake, medium, Brl.	5.00
Quebec Eels, large, per lb.	.07
Dried Codfish, med. & small 100 lb. bundle	7.00
Dried Hake, medium & large 100 lb. bundles	6.00
Dried Pollock, medium & large 100 lb. bund.	6.00
Dressed or skinless codfish, 100 lbs. case	7.00
Boneless Codfish, 2 lb. blocks, 20 lb. boxes	.08
Boneless Codfish, strips 30 lb. boxes	.11
Shredded Codfish, 12 lb. boxes, 24 cartons, ½ lb. each, a box	1.80

Bulk Oysters, Clams, Etc.

Best Standards, imp. gallon	1.50
Solid meats, imp. gallon	1.80
Best clams, imp. gallon	1.50
Best Shrimps, imp. gallon	2.25
Best Scollops, imp. gallon	1.80
Sealed best standards, quart cans, each	.35
Sealed best selects, quart cans, each	.45

Oysters, Clams, Mussels and Shell Fish, Crustaceans,

Cape Cod shell oysters, per barrel	12.00
Malpeque shell oysters, selected, C.C.I., brl.	9.00
Malpeque shell oysters, selected, J.A.P., brl.	8.00
Clams, per barrel	7.00
Mussels, per barrel	5.00
Winkles, per bus.	3.00

THE ATLANTIC FISHERIES

IN NEWFOUNDLAND

(From Our Own Correspondent.)

Since last issue fishery conditions have somewhat improved along certain sections of the coast; but reports regarding the catch are on the whole not indicative of a very large catch of codfish.

The Shore Fishery.

The shore fishery northwards from Cape Bonavista to the Straits of Belle Isle is short; and in some sections, notably in the Notre Dame Bay area, the fishery is very unpromising. Twillingate reports "hardly enough fish to eat." The local phraseology means that there is no fish being caught. Caplin have been abundant for some time; but the cod have not yet made their appearance abundantly in any section of the district.

Trinity and Conception Bays report good fishing for traps; but hook-and-liners have been doing little.

Around St. John's, and along the Southern Shore (from Petty Harbor to Renewws) several large hauls have been made within the last ten days—one trap having had two or three hundred-quintal-hauls. Here, too, hook-and-liners have not been doing well.

Cape St. Mary's reports are decidedly gloomy; and some of the fishing fleet have returned from the grounds with small fares. Along the South Coast (from the Cape to Channel) fish is reported scarce. On the whole the outlook is by no means too roseate.

The Bank Fishery.

The Bank Fishery, which promised so well just a month ago seems to have got a set back owing to rough weather. Numbers of vessels have arrived from the Grand Banks with small fares, and all of them report dreadful weather conditions. They have all refitted, and are now out on the third caplin baiting.

The French schooner "Leon," of Paimpol, arrived here during the week for repairs and refitting. She reports the loss of a lot of fishing gear as well as cables and anchors.

The number of French fishermen this season is not one-third of that of former years; the fishermen having been called to the colors. St. Pierre is practically depopulated, and there will be a great shortage in the French catch. This will operate favorably for us, as we shall likely get the "entree" to the French markets; and it is quite possible that the French Government will remove the bounty-handicap to our fish products. This bounty is equivalent to about two dollars a quintal, and hitherto, we have had to contend with French exporters to Southern European markets.

Two or three of our Bankers report for 3,000 quintals; this is a very large showing. The schooner "Metamora" (the only large auxiliary banking vessel) has just returned from the Flemish Cap and reports for 1,000 quintals as the result of three caplin baitings. She will likely make another trip to the "Cap" and then goes to Labrador.

Herring Fishery.

There is little doing in the herring trade. Herring are reported plentiful in St. Mary's Bay, but the fishermen are not catching them just now, as the industry is not remunerative.

Lobster Fishery.

The catch is very short; and the run of lobsters is small. Fewer fishermen are engaged in the fishery of lobsters this season than formerly; and the prices are about the same as last issue. None of the new pack have yet reached the city from the outports; but there is little inducement to shippers, as the price is not considered satisfactory.

Salmon Fishery.

Salmon are reported plentiful; but fishermen have salted most of the catch, owing to low prices prevailing at the beginning of the season. Recently enquiries were made from English buyers as to the quantity of tinned goods available, and some of our exporters are likely to make good shipments to England for the French market. We have no facilities for exporting directly to France. Should we succeed in getting this order, we shall be able to market the entire catch at remunerative prices.

Oils.

We have little or no seal oil to market, owing to the short sealing voyage. Some seals have reached the city since last report—the catch of shoremen in the North; but the quantity will not be sufficient for the making up of a cargo of oil.

Cod oil is in good demand, and high prices are ruling. Quite a number of small oil plants are in operation; but there is no official report of the quantity refined.

Whale oil seems to be absolutely wanting. The last whaling reports are discouraging; and the outlook for the industry is decidedly blue. Incoming steamers report large schools of cetaceans away to the eastward—too far out presumably to be profitably or successfully hunted. Only three whalers are operating this season, one of them on Labrador. So far this section has reported only one whale.

Labrador Fishery.

Last reports from the Labrador coast say that on lower Labrador ice has cleared off, and that at Grady—one of the large fishing centers—there was "a sign of fish," and some salmon were being taken.

The large fleet of floaters have possibly reached their destinations by this time, though many of them were held up on the French shore by ice for nearly two weeks. Upper Labrador reports are encouraging; but no large hauls are reported.

The Straits of Belle Isle fishery is good; and Grant's crew at Blanc Sablon is reported for 3,500 quintals, and Whilteley's at Bonne Esperance, with 2,500. Last year's fishery there was almost a failure.

Trawlers around Green Island are doing well; but they have been handicapped by ice. We have no reports of the individual catches.

Prices.

Fish of all grades has declined since the beginning of July, and prime merchantable is now quoted at $6.25 with corresponding decreases for inferior grades. The market will be unsteady for some weeks, and the daily reports to the Marine and Fisheries Department will affect the price all round.

The following was received from Lind and Couto at Oporto some days ago: "The high prices recently obtained in this market have had the effect of attracting large quantities of cod-fish and the supplies are now sufficient. At the present values the demand is very limited, and if any accumulation of stocks takes place the consumption will be encouraged by the lowering of prices. At this time of the year, the heat prevents holding fish long in the stores. The new Norwegian cure has come into the market; but the price asked is too high for the buyers. The Norwegian shippers have lately been getting such high prices for their fish that there is a limit beyond which the consumer cannot go. We look for a steady, if reduced, demand for Newfoundland fish during the coming season, and if the market is not overloaded no doubt we shall be able to maintain good prices."

We are just now face to face with a salt famine. Owing to the difficulty in obtaining freight-carriers we have had an exceptionally short salt importation. The salt famine is being keenly felt in the Straits of Belle Isle, and small quantities are going forward to the fishermen in sacks by rail and steamer. This will cost the purchasers on the coast of Labrador fully $3.50 per hogshead.

A shipment from Cadiz is due during the week by the Nascopi—one of our local sealing steamers—her arrival will relieve the situation somewhat. Some Danish and English fish-carriers are arriving at the outports, and these will help our southern and western fishermen to get the wherewithal to save their fish.

DIGBY, N.S.

(Special Correspondence.)

The shore boats here are getting lots of fish at present; principally hake, catching from one to four thousand pounds at a set. On July 13th some of the boats were obliged to throw away the last of their catch, as they were getting more than they could carry. Some of the boys are stocking over a hundred dollars a week per boat, which is fifty dollars a man. But in order to realize such banner weeks the essential conditions are: favorable weather, good bait, lots of fish and a natural inclination for hard work.

Schr. "Venus" landed here on June 21st, 21,800 lbs. mixed fish, and on July 2nd, 34,590 lbs., and again on July 16th, 42,125 lbs.

Aux. schr. "Cora Gertie," June 19th, 12,596 lbs; June 30th, 4,490 lbs.

Schr. "Grace Darling," June 26th, 68,872 lbs.; July 12th, 57,560 lbs.

Schr. "Trilby," June 26th, 70,000 lbs. salt fish; July 3rd, 15,000 lbs. salt fish.

Aux. schr. "Madaline L.," July 2nd, 5,473 lbs.; July 7th, 9,010 lbs.; July 16th, 13,225 lbs.

Schr. "Eddie J.," July 7th, 63,000 lbs.

Schr. "Lila Boutilier," July 7th, 187,840 lbs.

The last named landing is the largest ever brought into Digby, and probably the largest fresh fish fare landed by a sailing vessel in the province. The trip was secured in twenty-one days. The highline dory caught 10,498 count fish during that time. The "Lila Boutilier" is commanded by Capt. Arthur Casey.

LUNENBURG, N.S.

(Special Correspondence.)

Since our last report the whole of the spring Bank fleet have returned home with very good trips, a list of which is here attached, giving the approximate catch for each vessel. Owing to the almost continuous wet and damp weather, it has been impossible for those whose business it is to look after the drying and the marketing of the fish, to complete their part of the work, hence very few of the catch are ready for market. However, some half dozen of the first vessels which arrived home had the advantage of a week of fine weather, and their fish have been sold at prices around $5.50 for codfish, but owing to the condition of the markets abroad, it is very doubtful if the above prices will be maintained. It all depends upon the future condition of the consuming markets and the supply and demand.

The handline fleet have also completed their first trips and arrived home with fair catches, and the reports from the North Bay fleets have also been encouraging.

The main Lunenburg fleet, after leaving for the Grand Banks via Newfoundland, had no difficulty in obtaining a supply of Caplin bait, as the bait had struck on before the fleet arrived, but owing to very rough weather, the most of them were unable to fish, and the first baiting proved almost a failure with one or two exceptions, some of the vessels getting no fish, others from 50 to 200 quintals each, and a few a little over. The second baiting, however, fortunately proved more successful, and the vessels so far heard from secured from 300 to 500 quintals, each, which is much more encouraging.

The chief hope for full fares on the summer trips is on the supply of squid for bait, as without this supply the voyages will likely be small, but we must hope for the best.

The boat fishermen off the shore have been doing very well of late, many of them have been selling their fish fresh to Robin Jones & Whitman, Ltd., who are paying cash, and buying same at good prices for use in their fish factory here.

TYPICAL FISHING STATIONS OF EASTERN CANADA

NO. 1.—YARMOUTH BAR

By J. J. WALLIS

Quaintly situated, on a narrow neck of land and overlooking both the Bay of Fundy and Yarmouth Harbor, Yarmouth Bar has grown to be one of the most important fishing stations on the coast of Eastern Canada. Althouh it is situated within very easy reach of the town and can be seen from almost every point in it, it is surprising how few, comparatively, realize the size and importance of the little fishing village which has grown up within the past quarter of a century.

Probably ever since the town was founded the Bar has been used more or less for fishing purposes. Although there is no official record of when it was first used its location would make it attractive for the purpose. No doubt before the breakwater was built it was a wild and dreary spot and there would be nothing to attract a man to make a permanent station there. Nature, however, had given it some advantages. For instance on the harbor side there was a "guzzle" extending from the main channel to the beach, which was deep enough and wide enough to allow the small boats of the time to land their fares even at dead low water—and this same guzzle is still the principal water way to the Bar and at the shore end is built the wharf and fish stores.

From facts gathered from the older inhabitants of the "Cape" and vicinity we learn that its advantages were known and used on quite a large scale by fishermen who were not resident in the town. Some years before it became a permanent station fishermen from Port La Tour came up regularly evry mackerel season and used it as a headquarters. They built a "slip" close over to the West Cape and had a few rough shanties. The Bar was then fully exposed and several good ships have come to grief on it. Notable among them was the barque Saladin, the figure head of which is still to be seen in the workshop of David Stanwood—one of the oldest settlers of the place. There was a small channel through it and smaller vessels such as schooners engaged in the coasting trade have been known to drive through it under favorable conditions. Some times they were more or less damaged but one, the Spray, wsa known to drive through uninjured.

An "Avenue" at the Bar. Note the Lobster Traps

The breakwater was started in 1867, and it was probably one of the first public works to be undertaken by the government of the new Dominion of Canada. For the next fifteen years at least the fishermen began to use the Bar a little more and several had erected "shanties" among them being Henry Goodwin, who is still a resident of Yarmouth, Daniel Stoddart, Frank Jeffery, and several others. All these men had their homes in other places—and generally went home over the "week ends." The shanties were used merely as places to eat and sleep when ashore and as store places for gear, etc. About twenty-five years ago,

one mort bold than the rest, decided to make a permanent home on the Bar and moved his family to the place. He was quickly followed by others, then a Bethel was built and the village grew apace. It now has a population of probably 500, generally happy and contented—a community which is living as near the "simple life" as any community in Canada.

General Store and Fish Stand of Parker, Eakins, Ltd.

William Raymond and Norman Durkee were the first to see the possibilities for trading and they erected a small wharf and store near the head of the "guzzle" previously referred to, but they did not stay long and only a little of the piling is now left to mark the site of the old stand. They were followed by Parker, Eakins and Company in 1880. Under the management of C. S. P. Robbins, with A. E. McGray as clerk. This firm then had a number of bankers and it was at the Bar that these bankers landed their fares for curing. In fact at that time fresh fish "curing" was the principal enterprise carried on there and fish were carted from almost all sections of the country for this purpose, and it is a remarkable fact that then, when fish was cheap and $4 per quintal was considered very high, the men were paid 30 cents per quintal for curing. Now when the same fish runs up as high as $6.50 and $7.00 per quintal the fish curers in some parts of the province, up till quite recently, were only paid 25 cents, although in some cases they have come up to 30 cents during the last two years. When not

Along the Front Street at the Bar

curing fish the men were line fishing; lobstering had not reached the development it has since arrived at, although there was a little being done at it. Banking gradually died out but Parker, Eakins and Company have always adapted themselves to changing conditions and today no firm in Yarmouth stands higher in the public regard. Their business at the Bar has constantly grown and in the capable hands of the present manager—John Little—no doubt will continue to prosper.

Fishing too has changed. A few years ago line fishing was the principal fishing carried on, with lobstering as a side line; now it is just reversed. The men at the Bar are lobster fishers, par excellence, and they have as fine a fleet of motor boats as can be found anywhere.

Other quaint stories are heard of the earlier history of the Bar—stories that do not altogether smell of fish even if they are a little "fishy." Smuggling stories galore can be heard and no doubt many of them are founded on fact. In the days of slow transportation the Bar could have been used to advantage. What would be more natural for a vessel coming in from the West Indies—and there were many of them—to lay at anchor off the Bar, land several barrels of the ardent during the night and proceed to the wharves next day—innocent and law abiding. That they did so there is no doubt, and some of the older inhabitants of the place laugh over their adventures with the customs officals to this day. One tells of how he had his cellar full, with two men trying to catch him; bue these men were also fond of a glass or two and the judicious use of a small quantity of the smuggled stuff put them out of action so that no difficulty was found in moving the bulk of it to a place of safety.

The Bar From the Harbour Shore

THE SHIPS OF CANADA.

According to the list of vessels built and registered in Canada as issued by the Department of Marine and Fisheries, 1914 was a fairly active year in ship construction. In the '70's of last century, when the wooden sailing ship was still the glory of the seas and a main carrier of ocean-borne commerce, the measurement of vessels turned out of Canadian yards ran up towards 200,000 tons a year. The steel tramp that on a low consumption of coal could push its way through the water at a speed of eight miles an hour or so was getting its start, however. It was better adapted to the need of a growing commerce, and if on the ocean highway it could not keep up with the fine clippers and great three and four masted sailers, it had other advantages which made it the fittest, and its old-type competitor could not survive. From 1874, when 190,756 tons was added to the registry, there was a gradual decline till 1896, when the additions to the list only measured 16,146 tons. When the development of trade on the Great Lakes began to call for a larger class of steamers than had theretofore been employed, Ontario began to advance as a ship-owning and shipbuilding province, and has of late years been the chief contributor to the record. Last year the measurement of the new vessels was 43,346 tons, the largest figure in fourteen years; and of the whole, 23,167 tons was credited to Ontario. The increase in the total of vessels registered was, however, only 35,457 tons, there being a reduction on account of the loss, sale or breaking up of older craft. According to the record the number and tonnage of vessels registered in Canada at the close of 1914 was as follows:—

Ontario	2,100	314,660
Quebec	1,663	259,143
British Columbia	1,591	147,192
Nova Scotia	2,098	135,053
New Brunswick	1,052	55,522
P. E. Island	149	10,029
Manitoba	103	7,999
Yukon	11	2,295
Saskatchewan	5	529
Total	8,722	932,422

TO LOBSTER FISHERMEN AND CANNERS

Paper No. 2.

In the Bulletin for March the breeding habits of the lobster were considered and the absolute necessity for carefully protecting the egg-bearing lobsters was emphasized. In this article the growth of the lobster will be considered.

As the hard shell of the lobster is a dead structure, it does not grow with the animal. Hence, when the lobster has grown larger than its shell, as one might say, it must shed its shell and get a new and larger one. It is frequently stated that a lobster moults or sheds it shell to grow. The fact is, it moults because it has grown. Before the old shell is cast off, there is a cellular expansion in the lobster, so that as soon as it is free from its yielding shell, there is a considerable expansion in size. No doubt this expansion is partly due to the absorption of water by the soft flesh of the animal. What the increase in size at eash moult is, varies. It will be governed by several conditions, such as the age of the lobster, abundance of food available, etc. In a lobster of medium size the increase in length at each moult, under ordinary conditions, is about 12 per cent.

As was shown in the previous article, the young lobster moults four or five times during the first few weeks of its life, and before it becomes a lobsterling and goes to the bottom. As, like other animals, it grows, more rapidly in its early life, it moults quite frequently during its first year. It is estimated that it casts it shell a dozen times or more in that period. That would be eight or nine times after it goes to the bottom. In the second year it grows less rapidly, and so moults fewer times, possibly, five or six times, and in the third year not more than two or three times. By the end of that time it would be about seven inches in length, under normal conditions. From that time on it moults less frequently. Indeed there seems little room for doubt that old, large lobsters moult only every two or three years.

It is also a fact that after a certain size is reached, the female lobster does not continue to grow as rapidly as the male. As a general rule a ten-inch lobster is six years old or thereabout.

The process of moulting is a painful and serious one, and frequently ends fatally. How painful it is will be realized to some extent when it is remembered that the big claw has to be withdrawn through the small hole—less than one-fourth the size—in the joint at the base.

Before the old hard shell is cast the new one, which is then a mere soft skin, is formed, so that after moulting the lobster is known as a "soft shell." Just how long it should be so classed seems to be a matter of opinion among the fishermen and canners. It is, however, six or eight weeks before the new shell becomes as hard as the one cast off. Just after shedding the flesh of the lobster is soft and spongy, and is really not fit to eat. While it rapidly acquires firmness, as above indicated, it is not as firm or as heavy as it should be for several weeks.

While there are many exceptions to the rule the great majority of mature lobsters moult in July and August. Hence, fishing in these months should be restricted as much as it feasibly can be.

Without going further into details, it will be seen that the habits of the lobster and the conditions under which it lies, lend themselves to making it comparatively easy to deplete the fishery. Its range is limited. It has not been found south of Cape Hatteras, and it does not penetrate farther north than Chateau Bay, Labrador. The general movement of the lobster is towards shore in summer, and out into deeper water in the winter, so that if a particular area is fished out, it will not be speedly repopulated by lobsters from other portions of the coast, but must mainly depend on fry being carried there during its free swimming stage. While a large lobster has a large number of eggs, the proportion that come to maturity is very small, and in a comparative way the number of eggs produced is small. For instance, a herring yields double the number of eggs produced by an average lobster, a mackerel four times as many and a cod four hundred times as many.

While the Canadian Atlantic Coast has proved an astonishingly resourceful supplier of lobsters, it is admitted on all sides that the fishery is seriously declining. Though the catch has not declined as much as might be expected, it must not be forgotten that the efforts to keep it up have been greatly increased. The general use of motor boats has enabled much more intensive and extensive fishing to be carried on.

All these conditions point with unwavering clearness to the fact that if the fishery is to be maintained in a flourishing condition, the regulations governing it must be sharply restrictive; but the usefulness of such regulations must be measured by the degree to which they are observed. The high price of lobsters in recent years has been a strong lure to carry on illegal fishing, and canning during the close season, and there seems little room for doubt, to say the least, that such has not in all instances, been discouraged by important canners. It is, however, very gratifying to note that illegalities are rapidly disappearing. Not only is the Department much better equipped than it ever has been to cope with such practices, but it is evident that those engaging in the industry are realizing that it is to their permanent advantage to have the fishery properly protected. As long as there is a packer who will supply cans or assist in handling lobsters that are illegally taken, there will be found those who will undertake to attempt the fishing. Obviously, therefore, if the canners will absolutely discountenance illegal packing by consistently refusing to supply any of the equipment needed to carry it on, or to handle the lobsters that may be packed, the work of the Department in affording the fishery the full protection contemplated by the regulations will be rendered a much simpler matter.

William Brown, a bricklayer of South Bethlehem, Pa., returned from a fishing trip to Willow Eddy, along the Lehigh River, richer by $35. Among the fish Brown caught was a catfish which had in its stomach a purse in which was $85.—Next.

THE PACIFIC FISHERIES

(Special Correspondence.)

Fishing around the British Columbia coasts of late has been quiet, herring salmon and halibut being somewhat scarce. The markets for our other fish or as we call them "small fish" and for cod being so limited, if the above fish are shy, the trade is consequently very quiet.

At different times rumors appear and a little excitement occasioned by reports that Great Britain is bound to import a lot of frozen fish from British Columbia. This is possible, but quantities such as some anticipate, highly improbable. To deliver frozen and chilled fish into that market means a freight rate and charges that amount up to 5c and over per pound. On top of this space on the Atlantic boats is most difficult to get and most uncertain. A good suggestion appears in the "Pacific Fisherman" and that is the idea of sending the S.S. "Elihu Thomson" direct with a cargo of frozen fish via the Panama Canal. This steamer is used for the transporting of frozen fish from the Alaska cold storages to Vancouver and Seattle. If the consuming public of Great Britain want fish, it certainly looks as if they will have to take either the frozen or salted goods. We all would like to see them take the frozen fish, as this will help to break down the undeserved public disapproval of frozen food stuffs.

There are several visitors from the East on this coast at present. Amongst them are Mr. W. A. Found and Mr. F. W. Wallace. The former is looking into the general situation and refreshing himself with local conditions to assist him in his important position as Superintendent of Fisheries at Ottawa. Mr. Wallace we all know as the Editor of the "Canadian Fisherman." He is making a visit to the halibut grounds in one of the boats operating from Prince Rupert. We shall look for some of the same sort of stories as he has produced from his visits to the Atlantic banks.

There are some nervous people in all communities, and others who feel that it is their duty to their country to watch out for supposed spies. Lately quite a little excitement was worked up over a report that mysterious signalling was seen off Point Grey These lights turned out to be occasioned by the fleet of "mosquito" boats looking for submarine prizes in the shape of herring and elusive sockeyes.

That British Columbia is doing her share in the present war is proved by the enlisting of all classes. Machine guns are freely offered by people in every walk of life. In a recent campaign, the New England Fish Company of Vancouver (the Canadian Fishing Co., Limited) offered a complete machine gun costing $1,000. This amount is made up from voluntary contributions from members of the staff. The Fraser River fishermen have also suggested that a certain percentage of their catch on Monday mornings be devoted to a similar fund. Prince Rupert has furnished many men in proportion to her population, and almost every cannery has some former employee or executive at the front or training. Many have been killed and more wounded already. L. Crippen of Prince Rupert was killed a few weeks ago. Crippen's Boneless Herring attracted quite a considerable amount of attention at the Toronto Exhibition in 1913.

Whaling has been continued this year, notwithstanding the fact that the Canadian Northern Pacific Fisheries Co. had failed. A new company was formed, and some of the whaling steamers have already left for the grounds. Only two of the stations will be operated this year as against four owned by the company. In Seattle already 2,000 barrels of oil have been received. The prices are stated to be favorable to the makers this year, owing to demand from Europe.

Most of the gear of the late B. C. Fisheries Co., Ltd., has been disposed of. The halibut steamers are still laying up, and nothing is being done with them. It is supposed that arrangements were completed in England for the further operations of this company, but that financial conditions will not now permit this. At all events these boats could be leased, as several have enquired for them. But this will not be done for some reason or other only known to the owners.

The trade is still demanding to know when they will be permitted to sell fish for use by the troops in training. Permission was given to the men responsible for the feeding of the troops to provide fish, but this is stated to have made no difference in the amount ordered.

SALMON.—The Fraser River canners have fixed the prices for the season as follows: Sockeyes 40c each, Red Spring 5c per pound. These prices are higher than other seasons, and may go higher still if conditions warrant. As it is still early, catches are small, and about enough to supply the fresh market.

It is too early to say what the price on "humps" will be. This is supposed to be a big year in "humps," and in other seasons quite a lot of these fish were put up in all styles. As a rule quite a quantity is packed by the Japanese in the style known as "dry salted" for the Orient. But as space seems to be a difficulty and transportation problematic, it is uncertain what quantity of this will be put up. On Puget Sound these fish are caught in traps, which is not permitted on the Canadian side. We can send fresh fish into America but although the Americans have the advantage over us in being able to get their fish cheaper, still they are prevented from shipping into Canada by the 1c per pound duty collected. Of late years quite a business

has been done sending fresh fish to the American canneries who were short of supplies in their own waters.

Officials of the Dominion and Provincial Governments are North on an Inspection trip. Licenses have been taken out in all districts as in other years, but as far as possible white fishermen are given the preference everywhere. This year the arrangements on the Skeena River have been altered. Formerly licenses to independent fishermen were more or less limited. To assist settlers, licenses are obtainable by all British subjects now. No Japanese, Chinese, or Indian (presumably Hindu) can obtain an independent license, but may use certain ones given to the canneries for the purpose.

HALIBUT.—Prices are still steady with limited arrivals. The New England Fish Co. tried out the plan of fishing stations for the collecting of halibut, but have now discontinued the plan.

On Puget Sound the arrivals still keep up, and strange to say, there have been no cheap prices. The highest price for June was 7¾c, ex vessel and the lowest 4½c, with an average of 5.6c. The United States Bureau of Fisheries is alive to the importance of this industry, and is seeking new banks continually, and doing other good work. The S.S. "Roosevelt" of Arctic fame is being outfitted in New York and will soon be leaving for the Pacific to assist the Government in this work.

Prince Rupert is a busy place now, if we can judge by the arrivals of American boats made possible by the new Order-in-Council. Seattle and Ketchikan are, of course, making a big fight to get back this business, as it is so vital to their interests. There seems to be all sorts of misconception as to what this Order-in-Council allows. One American boat arrived in Vancouver not long ago looking for bait and supplies, only to find that as she had not landed her catch in Vancouver she could not outfit there.

HERRING.—For the past few weeks the market has been bare. The herring seem to be like the Irishman's flea—there, but hard to catch. But this seems to be characteristic of these fish, and it is a tantalising one, too. When the trade is busy with other matters, these fish offer in abundance, but disappear when wanted. Now that a commercial use has been found for these fish, greater study must be given them, both by the trade and also by the Government. Larger boats are required and the fish followed as in other countries. This calls for big outlays of money, and it has been suggested that bonuses be given either for the building of the boats or on the catches. I understand that the visit of Mr. Found from Ottawa is connected with the herring fisheries of this coast.

Whilst on this matter, readers of the "Canadian Fisherman" will be interested to hear of a peculiar trait of herring. Not long since I listened with great interest to the explanation given for herring being so hard to catch, although there were all sorts of them on the grounds. The enquirer was informed that herring about this time of the year deliberately anchor themselves. As this was a new one on me, I watched for, and think I caught the tell-tale side glance in the narrator's eye. It seems that the fish grow from their mouths two small suckers with which they attach themselves to the sea-bottom. They stay this way for about a month, meanwhile fattening from the sustinence they draw through these suckers. When the alloted time is up, they all "up killick" at the same time and pursue their normal habits. Apparently this habit is not peculiar to our waters, for the narrator stated that he had seen the herring in the same predicament in the North of Scotland. There the fishermen have special apparatus to stir up the fish and get a move on them.

Whether herring be anchored or not, we know that they will not move at times, and so strike the gill-net spread for them. Other means of fishing must be allowed by the authorities if our industry is to be developed as it should.

OTHER FISH.—Supplies are sufficient for the demands and the different varieties in abundance. Shrimps and prawns are looking up, and smelts may be had by all who care to get a net. It is quite a common sight to see the head of the family accompanied by excited small boys, proceeding to the beach these fine evenings, armed with a smelt net.

Codfish are at present somewhat scarce on the fresh market, and at time of writing were retailing at 7c per pound.

Wholesale Fish Prices—Vancouver, B.C.

SMOKED FISH.—Finnan Haddies, 15s and 30s, 10c to 11c; fillets, 11c; kippers, 7c; bloaters, 6c; salmon, 11c to 14c; halibut, 11½c black cod, 12c.

FROZEN FISH.—Steelheads, 9c; halibut, 6c; smelts, black cod, etc., 8c.

FRESH FISH.—Salmon, 5c to 10c lb.; halibut, 5c to 7c; cod, 7c; smelts, 6c; soles, 6c; whiting, 4c; skate, 3c; perch, 5c; rock cod, 4c; red cod, 4c; bass, 5c; black cod, 6c.

PICKLED FISH.—Codfish bricks and boxes, 8c to 14c; whole cod, 6c to 8½c; herring, 3c to 4c per lb. Salmon, 6c per lb; black cod, 5c per lb.

SHELL FISH.—Crabs, $1.00 to $1.20; shrimps, 12c to 16c; prawns, 20c; clams, 2c; clams, shelled, $1.25 gal.

Canned Salmon.

The prices given elsewhere show that canners on the Fraser are offering a good price for the raw material. So far sales have been made on the new pack subject to the usual conditions. All of the high grade fish such as the sockeye and red spring are practically sold to Great Britain, and a considerable amount of the other packs are booked ahead.

Canners in British Columbia do not set a limit one way or the other on the size of the pack, putting up as a rule as much fish as they can and as their outfit permits. For instance, on Puget Sound the American packers are stated to be aiming at a pack of a million and a quarter cases of Pinks or Humps. The Canadian packers will go nowhere near this, but will all the same put up a respectable sized pack. Prices on this fish are not yet announced.

Movements are very slow mainly owing to the difficulty in securing transportation facilities. A little fish is being packed as it offers, both on the Fraser and on the Northern rivers, and a few cases have arrived in the city.

No low prices are looked for in any grade at all. With the increased cost of the raw goods, and conditions all around, it looks as if the English market will pay almost record prices. Of course, now that after

many years and hard work, the English market has been persuaded to buy the lower grades such as pinks and chums, the consumer will not be compelled to pay abnormal prices for canned salmon. Up to lately, the only salmon that the English public would buy was the red fish or the sockeye and red spring. The lighter colored fish did not suit them. But the strong canvass made by all interested in the industry has resulted in more and more of the cheaper grades being used. The most meagre purse can now purchase in England canned salmon, and fish of equally nourishing qualities as the higher priced red article.

A representative of the French government is stated to be here placing contracts for canned salmon. It may be that the French soldier will use fish as food, but the English "Tommy" wants meat every time, and does not think that he can get a square meal off of fish. It is expected that the movement to Europe will be a very large one, especially as all food supplies will be valuable and all food possible will be required in the countries now fighting. During the past few months there have been reports that the Japanese Government had agents in both Canada and the United States enquiring for large quantities of canned salmon.

There have been two at least large cannery deals reported on the Pacific of late. The Booth Fisheries Company have bought out the interests of Gorman & Co., of Seattle. The new company is the Anacortes Co. The price paid is stated to be $1,000,000. The Fisheries Company and a subsidiary of Booth Fisheries Scottish-Canadian Cannery over which there has been quite a little litigation the past year, has been bought by Mr. Robert J. Graham, of Belleville, Ont. Mr. Graham is stated to intend operating this season and to thoroughly overhaul the buildings and plant, installing much up-to-date machinery. The Draney Fisheries Company and the Kincolith Packing Co. are being operated by Mr. Henry Doyle, one of the best posted cannerymen on the Coast. It was stated that these two companies were in difficulties, but arrangements are now made for the continuing of the operations, and all interested have every faith that Mr. Doyle will make a success of these two companies.

Prices have not changed materially since last report, being: Sockeyes, talls, $8.25, flats $8.75, half flats $10.25; Cohoes, talls $4.75, flats $4.75, half flats $6.25; Pinks, talls $3.75, flats $4.25, half flats $4.50; Chums, talls $2.75.

PRINCE RUPERT NOTES.

Since the amending of the Order-in-Council as to Bonding privileges, entries to the number of 113 have been made at the Customs House, Prince Rupert, of fishing boats of American registry, landing fish in bond at Prince Rupert.

The recent completion of the Imperial Oil Co.'s tanks and warehouses, has greatly facilitated the supplying of distillate to fishing boats. This plant consists of five storage tanks, offices, pumping house, warehouses, etc., and cost $250,000 to build.

The wholesale and retail merchants are taking active steps in connection with the supplying of boats with necessary supplies, and they in addition to the Canadian Fish and Cold Storage Co., who also deal in fishing supplies with the fisherman, now fully cover the requirements of the fisherman.

The large fishing gear supply house of E. Lipsett, of Vancouver, has a branch located in Prince Rupert, and has placed Prince Rupert on the same basis as to Vancouver in the matter of these supplies.

It is now possible for the fishing interests, to readily dispose of their catch and obtain all the supplies they require at satisfactory prices.

The Booth fishing interests have approached the city with reference to the establishment of a branch of their business at this port. The City Council have under consideration several propositions for still further increasing the accommodation for the fishing interests, and among these is a fish wharf and cold storage plant, for the use of the independent fishermen.

The undernoted figures give the quantities of fish landed month by month during the first half of 1915 at the port of Prince Rupert. The total amount of halibut landed at Prince Rupert during the year 1914 was 8,742,100 lbs. For the first six months of 1915 it is 6,182,200. These figures show that Prince Rupert as a fishing port is growing fast.

January.—Salmon 24,000 lbs.; cod, 10,000; lbs.; herring, 1,000,000 lbs.; halibut, 625,000 lbs.; mixed fish, 7,200 lbs.; shell fish 6,00 lbs. Total value $44,300.

February.—Salmon, 25,000; cod, 8,000; herring, 1,486,000; halibut, 799,700; mixed fish, 16,300; shell fish, 7,000. Total value, $58,480.

March.—Salmon, 35,000 lbs.; cod, 8,500; herring, 2,000,000; halibut, 810,000; mixed fish, 17,000; shell fish, 8,000. Total value $65,055.

April.—Salmon, 65,000 lbs.; cod, 10,300; halibut, 750,200; mixed fish, 4,800; shell fish, 12,000. Total value, $42,235.

May.—Salmon, 103,400 lbs.; cod, 9,000; halibut, 1,497,000; mixed fish, 5,000; shell fish, 1,000. Total value, $80,785.

June.—Salmon, 135,500 lbs.; cod, 8,800; halibut, 1,700,200; mixed fish, 1,000. Total value, $148,275.

Totals.—Salmon, 377,900 lbs.; cod, 54,600 lbs.; herring, 4,486,000; halibut, 6,182,200; mixed, 51,500; shell, 34,000; total 11,186,200 lbs.; value, $439,220.

Of the above nearly all the halibut, salmon, mixed and shell fish and cod was shipped east over the G. T. P.

FISH PACKING ESTABLISHMENT IN NEWFOUNDLAND.

Reference has been made to negotiations in progress between the Newfoundland Government and a New York syndicate in connection with the formation of a fish packing establishment on a large scale. Mr. W. B. Nicholson, Trade Commissioner at St. John's, has now informed the Department of Trade and Commerce that the necessary legislation having been passed it is thought that the company will begin the erection of buildings and the installation of machinery with as little delay as possible.

The local concern to be absorbed by the new company is one which has been carried on successfully by a manager who is already known to Canadian importers of shredded and boneless fish, and who will be in charge of the new concern. According to the plans the new building which is to be finished by the last of August or the first of September, and is to be one hundred feet long, fifty feet wide and two stories high. Until then, however, the old plant will be utilized. The new industry when in full running order will furnish employment, it is stated, for about 1,000 men and girls. Motor boats are to be used in conveying fish from the fishing grounds to the packing establishment. As the premises will not be finished till late in the season, the

output for this year cannot be correctly estimated, but it is thought that it will approximate between three hundred thousand and four hundred thousand pounds of boneless codfish. Salmon, trout, eels, tinned fruits, and cod-oil are also included in the prospective output of the new industry.

UNITED KINGDOM MARKET FOR FROZEN FISH.

Mr. Harrison Watson, Canadian Trade Commissioner at London, has informed the Department of Trade and Commerce, that it is the opinion of the manager of a firm of fish dealers in London that the large reduction in the supplies of fresh fish of all kinds, will afford an opportunity for the introduction of Canadian frozen fish to the United Kingdom.

It is also stated that although the trade has so far been practically confined to salmon and halibut, there is no reason why haddock, cod, and other fish which are in demand in this market should not be included, particularly if the shortage becomes acute.

It is probable that Canadian fish curers and shippers who have not so far associated themselves with the frozen fish business might be ready to look into this matter if the prospects are favorable. The name of the firm in question may be obtained on application to the Department of Trade and Commerce, Ottawa.

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CANADIAN FISHERMAN

THE MAGAZINE OF CANADA'S COMMERCIAL FISHERIES

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On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license

To The Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to--

THE MINISTER OF COLONIZATION,
MINES AND FISHERIES OF THE PROVINCE OF QUEBEC

Department of The Naval Service

FISHERIES:

In addition to the full statistics of the Fisheries which are published yearly in the Annual Report, the Department issues monthly bulletins containing statistics of the sea fisheries and general information in regard thereto. Copies of these will be sent free to any applicant.

The value of the Fisheries of Canada is now about $34,000,000.00 annually.

The demand in the home markets for fresh and mildly cured fish, is expanding very rapidly. The Department pays one-third of the express charges on less than car-load lots on all shipments of such fish from the Atlantic Coast to points as far west as the eastern boundary of Manitoba, and from the Pacific Coast, as far east as this boundary.

Close Seasons for Fish in Force on May 1st, 1915

Kind of Fish:	Nova Scotia.	New Brunswick.	P. E. Island.	Quebec.
Bass (Achigan)	.....	.....	.....	1 April to 15 June.
Maskinonge	.....	.....	.....	15 April to 15 June.
Ounaniche	.....	.....	.....	1 Oct. to 30 Nov.
Oysters	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.	b1 Jan. to 30 Sept.
Quahaugs	Oct. 1 to May 10 July 1 to Aug 31.	Oct. 1 to May 10 and July 1 to Aug. 31.	Oct. 1 to May 10 and July 1 to Aug 31.	.....
Pickerel	.....	.....	.....	April 15 to May 15.
Salmon (netting)	Aug 16 to Feb. 28	Aug. 16 to Feb. 28.	Aug. 16 to Feb 28	Aug. 1 to April 30.
Salmon (angling)	eAug. 16 to Jan. 31.	Sept 16 to March 31.	Sept. 16 to March 31	Sept. 16 to April 30.
Smelts	fApril 1 to July 1.	fMarch 1 to June 30.	fApril 1 to June 30.	April 1 to June 30
Sturgeon	.....	June 1 to July 1.....	.....	June 1 to June 30.
Speckled Trout	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to March 31.	Oct. 1 to April 30
Salmon Trout	.....	.....	.....	Oct. 15 to Dec 1
Whitefish	.....	.....	.....	.....

Kind of Fish:	Ontario.	Manitoba.	Saskatchewan and Alberta	British Columbia.
Bass (Achigan)	a15 April to 15 June.	.....	.....	.....
Maskinonge	15 April to 15 June.	.....	.....	.....
Ounaniche	.....	.....	.....	.....
Oysters	.....	.....	.....	May 1 to Aug. 31
Quahaugs	.....	.....	.....	.....
Pickerel	cApril 15 to May 15.	April 15 to June 20.	dApril 1 to May 15.	.....
Salmon (netting)	.....	.....	.....	.....
Salmon (angling)	.....	.....	.....	.....
Smelts	.....	.....	.....	See regulations.
Sturgeon	.....	gMay 15 to June 15.	gMay 15 to June 15.	.....
Speckled Trout	Sept. 15 to April 30.	.....	.....	.....
Salmon Trout	hNov. 1 to Nov. 30.	.....	.....	.....
Whitefish	hNov. 1 to Nov. 30.	Sept. 15 to Nov. 19.	iSept. 15 to Dec. 15.	.....

a—Except in Lake Erie west of Pt. Pelee and around Pelee Island, where close season is May 25 to July 15.
b—Except on leased areas, where close season is from 1 July to 31 Aug.
c—No close season in St. Clair River and off Lambton County.
d—Except in waters north of or intersected by 54th parallel north lat. between eastern boundary of Saskatchewan, and 109th meridian and in waters intersected by or north of 55th parallel n. lat. west of this meridian to western boundary of Alberta, where there is no close season.
e—Except in Cape Breton Island, where close season is from Sept. 27 to May 31.
f—Bag-net fishing season Dec. 1 to Feb. 15; gill-net fishing season Oct. 15 to Feb. 15. Licenses required for bag-nets or gill-nets.
g—Sturgeon fishing prohibited until Jan. 1, 1916.
h—No close season in Lake Erie.
i—Except in waters specified in (d) where close season is from 1 Oct. to Nov. 30.
For British Columbia See Regulations.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA, THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE OF FISH PRODUCTS

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Official Organ of the Canadian Fisheries Association

Vol. II. MONTREAL, SEPTEMBER, 1915 No. 9

∴ In all the World no Fisheries Like These ∴

The total marketed value of the fish taken by Canadian fishermen from the sea and inland waters during the fiscal year ending March 31st, 1914, amounted to $33,207,748—a mere drop in the bucket to what it will be in the near future.

In fishery resources, Canada is more bountifully endowed than any other country on earth, both in the wealth of fish in her territorial waters and her close proximity to the fishing banks on both oceans.

Upon the Atlantic Coast the great lobster fishery is, with the sister colony of Newfoundland, practically ours. Our friends to the south have the lobster grounds of the New England coast, but they have been so heavily fished that the present catch is insufficient to supply the United States market. The Bay of Fundy from the Maine boundary to Chignecto: the Nova Scotia coast from Chignecto around the whole provincial peninsula and including Cape Breton Island; the whole of Prince Edward Island; the Gulf of St. Lawrence washing the New Brunswick Coast; the Gaspesian peninsula; the Island of Anticosti; the Magdalens; the north shore of Quebec; the Labrador coast up to Henley Harbor, and the whole of Newfoundland's shores, are the habitat of the lobster and the largest area in the world.

The territorial waters of this area — within three miles of shore and including bays and indentations not more than six miles wide—are abundant in cod, haddock, hake, pollock, cusk, halibut, and fish of coarser varieties all the year round. In the migratory seasons vast schools of herring, mackerel and sardines strike inshore in these areas and can be captured with the crudest appliances and with but little effort. Atlantic salmon, shad, gaspereau, smelts and flounders are abundant on the Atlantic coasts of Canada and Newfoundland, and with larger markets, better prices and more inducements to fish, the harvest of our territorial waters alone could be increased enormously.

On our Eastern seaboard, Canada and Newfoundland have the distinct advantage of having all the great offshore fishing banks with easy radius of our ports. Commencing with the banks in the Bay of Fundy—famous for hake and haddock—we have the Seal Island grounds, the Gully of the Cape Sable shore, and Brown's Bank handier to Yarmouth, N.S., than any foreign port. The hard bottom of the Seal Island ground and the Gully are celebrated for cusk and halibut while Brown's is one of the best winter haddocking banks in the Atlantic. Off the southeastern Nova Scotia coast the famous cod, haddock, and halibut banks of Roseway, La Have, Western, Sable Island, Banquereau, Middle Ground, Canso, Misaine, and Artimon lie anywhere from three to four hundred miles nearer to our ports than to those of the United States.

In the angle formed by Newfoundland and Nova Scotia lie the great cod fishing grounds of St. Peter's, Green, and Grand Banks. From the port of Boston, Grand Bank is a run of 1,000 miles; from St. John's, Newfoundland, it is less than 100 miles, and from Halifax, N.S., about 500 miles. The cod fishing grounds of the Gulf of St. Lawrence, are almost entirely enclosed by Canada and Newfoundland; the halibut ground of Anticosti Island, and the Quebec shore are within 300 to 400 miles of a Canadian market port and over a thousand miles from Gloucester or Boston. The advantages are all with us, yet the bulk of the fishing vessels operating upon these grounds are Americans from Portland, Gloucester, Provincetown and Gloucester, and French from the ports of St. Malo, St. Servan, Paimpol, Fecamp, etc., in France and from St. Pierre in the Miquelon Islands.

Upon the Pacific coast the salmon, is of course, the most valuable fishery with a value of over $10,800,000 for 1914. The United States, however, are particularly well favored in the salmon fishery as they have the Columbia River and have the advantage of catching the salmon outside our territorial limits as they enter the Straits of San Juan de Fuca to the spawning grounds of the Fraser and other inlets. In the salmon fishery of Alaska, however, they have the disadvantage of having to operate from 500 to 1,000 miles away from home territory and the nearest shipping point. In British Columbia there is no cannery more than 250 miles away from Prince Rupert, Victoria, or Vancouver, and the railroads and steamship lines connecting there for transcontinental or trans-oceanic hauls.

In the Pacific halibut fishery, Canada has all the advantages. The grounds of Hecate Straits and around the Queen Charlotte and Vancouver Islands are all within territorial waters or adjacent to them. The best of the southern halibut grounds are located in from 48 deg. 50 min. to 54 deg. 50 min. north latitude—from Victoria, B.C., to Prince Rupert, B.C., and on the grounds a large fleet of American fishing craft from Seattle operate. The northern halibut grounds of the Alaska coast from Cape Muzon to Unimak Pass, which are now being increasingly developed, are handier to Canadian ports than to those of the United States. From Prince Rupert to the fishing areas off Yakutat, Cape St. Elias, Middleton or Shumagin Islands, it is, five to six hundred miles less than from Seattle.

The fishery wealth of the Pacific is nothing short of marvellous. Salmon are so plentiful that in spite of the hundreds of canneries packing them, there is no diminution in the numbers which swarm inshore during the season. Halibut, second in importance to salmon, is caught in greater quantities than anywhere else in the world. Steam dory and long line halibut vessels seldom remain longer than eight to ten days on the grounds before they secure a trip of from 100,000 to 150,000 pounds of the fish, and out of Vancouver and Prince Rupert, small four dory gasolene schooners for a week's fishing in the vicinity of these ports will land fares of 25,00 to 30,000 pounds.

The possibilities of the Pacific codfish are destined to be immense when it pays to catch and prepare them for market. At the present time those caught on the gear of the halibuters are "shacked off" or used for bait—but a few being brought ashore to supply a local demand. The black and gray cod of the Pacific can be caught in enormous quantities and are almost as prolific as dogfish. The banks in the Behring Sea produce the best codfish, and here again, Canada has the advantage of being 500 miles nearer the fishing grounds.

Herring, on the Pacific, is most abundant and provides a future fishery which will become one of the greatest. At the present time about 27,000 barrels are used for bait purposes and only 5,500 cwts. used for food in a fresh, smoked and pickled state. The run of these fish are so heavy at times that a whole twenty ton scow load can be bailed up by a large dip-net in a few hours almost anywhere on the British Columbia coast. In addition to salmon, halibut, codfish and herring, the Pacific abounds with red rockfish—a fish of fine flavor and not unlike the red snapper of Atlantic waters—also skate and arrow-toothed halibut. The latter three species are seldom brought to market.

The fisheries of the Great Lakes we share about equal with our American cousins, though we have the advantage in possessing, within territorial waters, the best fishing areas of the north shore of Lake Superior and the Georgian Bay of Lake Huron. For whitefish, lake trout, herring and pickerel, these grounds produce the finest quality and in great abundance. The vast number of inland lakes scattered, throughout Canada teem with fish—whitefish, trout, pickerel, pike, perch, tullibee, catfish, etc., and many of them cannot be fished commercially owing to lack of transportation facilities. These inland lakes are destined to become a great source of supply for future markets. From the lakes of Manitoba alone, whitefish to the value of $229,391 were taken in 1914, while the total value of fish caught in that Province amounted to $606,272 in value—three quarters of the catch being shipped to the United States.

With such a bountiful inheritance in fishery resources and proximity to the great Banks of the Atlantic and Pacific, Canada can justly claim to possess the greatest fisheries in the world. With the development of home and foreign markets, increased transportation facilities, more economical methods of catching fish, and better attention to details of preparation and cure, who can prophesy how great our fisheries will become?

BRITISH COLUMBIA TO HAVE A BRANCH OF THE CANADIAN FISHERIES ASSOCIATION.

An informal meeting of the directors and members of the Canadian Fisheries Association met recently as guests of Mr. A. L. Hager, in Vancouver, B.C. The following were present: Mr. F. W. Wallace, secretary, Montreal; Mr. A. L. Hager, director; Mr. W. H. Barker, 2nd Vice-President; Mr. Peter Wallace, director; Mr. W. Hamar Greenwood, director; Mr. A. Sterrett, Mr. F. E. Burke, Mr. F. J. Hayward, Mr. Jas. Anderson.

After luncheon a general discussion took place. A resolution approving the formation of a British Columbia branch was passed, and the following committee was appointed to discuss and formulate plans for such an organization: Mr. A. L. Hager, chairman; Mr. W. H. Greenwood, Mr. A. W. Sterrett, Mr. F. E. Burke, Mr. H. S. Clements, M.P.

The Canadian Fisheries Association was formed last winter, and an enthusiastic representation of all the Canadian fishing interests met at Ottawa. A unique and well attended fish banquet was held at the conclusion of the convention, at which all delegates were present, as well as the Minister of Marine and Fisheries, government officials and railway and express company officials. This national association of Canadian fishing interests is filling a long felt want, and it is the aim of the association to widen the scope of its operations, and to bring together at stated periods representatives of all branches of the industry in order to improve the methods of handling and distributing the fishery products of the Dominion. Much enthusiasm is being shown, and the different provinces are forming separate societies and organizations in order to simplify and assist the work of the main organization.

The fishery interests of Prince Rupert are also desirous of forming a local branch, but it is under consideration whether it would be advisable to have two British Columbia branches—North and South Divisions. It has been suggested that one branch only be organized with alternate meetings at each port—Vancouver and Prince Rupert. No doubt arrangements will be made which will suit the requirements of both centres.

PATRIOTIC FISH MEN.

In offering men and money to Great Britain in the present war, the fish men of Canada have not been behind those engaged in other industries. We have no information complete enough to do justice to them by the publication of an Honor Roll, but we know of numerous instances illustrating the fact that the fish trade are "doing their bit," for the Empire.

Mr. Clarence Jamieson, M.P., for Digby County, N.S., though not actually a fish man, represents a fishing county, and is a close student of matters pertaining to the fisheries, gave $1,000 for the purpose of buying a machine gun. The gift is particularly generous considering that Mr. Jamieson had saved this sum to purchase an automobile. The Member for Digby was unfortunate enough to have injured his leg some time ago and wished to purchase a car to enable him to visit his constituents. His action was the means of starting similar contributions from Nova Scotia and some 100 guns have since been contributed—many of them coming from fish men of the Province.

Out on the Pacific Coast, the Canadian Fish and Cold Storage Co., Ltd., of Prince Rupert subscribed the price of a machine gun from among its employees, and in Vancouver, the Canadian Fishing Company also made a similar contribution. Mr. W. H. Barker, President of the B.C. Packers Association, contributed the money for a gun personally.

Mr. J. E. Hawkins, of the D. Hatton Company, Montreal, has three sons serving the Empire and another in training to go. Mr. W. S. Loggie, M.P., of Chatham, N.B., has two sons in khaki; Mr. S. Y. Wilson, of Halifax, N.S., has a son among the fighters. The well known Vancouver family of Bell-Irving, have sent several representatives to the front. Mr. W. Nicholls, of the Canadian Fish and Cold Storage Co., Ltd., Prince Rupert, has taken a lieutenant's commission and is awaiting orders to go.

Hundreds of men engaged in the trade—at sea and ashore—have enlisted. We do not know them all, nor do we know of the many contributions that have been made by fish men, but we are glad to mention the names of the few that we have heard of.

FISHERIES AT THE CANADIAN NATIONAL EXHIBITION.

The Fisheries will again be featured at the Canadian National Exhibition held in Toronto from August 28th to September 11th. Displays of Canadian fish and fish products will be shown in the Dominion Government Building and several firms will have stalls and sections of the Cold Storage Room to exhibit their fish foods.

Arrangements have been made by the Department of Naval Service with the restaurants in the Exhibition to have fish specially featured in the daily menu, and extra attention will be given to fish dishes on Fridays. September 3rd is to be "Fisheries Day" at the Exhibition and a luncheon will be given by the Directors to the Hon. J. D. Hazen, Minister of Fisheries, and other officials of the Fisheries Department.

The Executive Meeting of the Canadian Fisheries Association will be held in Toronto on that date.

CANADA'S FISHERIES A FEATURE AT TWO EXHIBITIONS.

Canada's fisheries and fishing industry will be features at the Canadian National Exhibition held in Toronto, August 28th to September 11th, and also at the Nova Scotia Provincial Exhibition which opens in Halifax, September 8th. Mr. A. H. Whitman, President of the N.S. Branch of the Canadian Fisheries Association will supervise the lay-out of the Nova Scotia exhibition.

OCTOBER ISSUE OF "CANADIAN FISHERMAN."

A special feature of the October issue will be "The Log of a Long Line Halibuter"—being the account of a trip made by the Editor upon a steam halibut fishing vessel from Prince Rupert to the Alaska halibut banks in which the long line method was used.

Two years ago, the Editor made the voyage upon a halibut schooner to the Anticosti grounds and our readers will probably remember reading the account published in the "Canadian Fisherman" and entitled "The Log of a High Line Halibuter." It is a far cry from Anticosti to Alaska and those who are familiar with dory halibuting on the Atlantic will be interested in the work of the "Long Liners." The article will be illustrated by photographs.

NEW SUBSIDIZED FREIGHT SERVICE.

Largely through the efforts of the Transportaion Committee of the Canadian Fisheries Association, we are able to announce that the Department of Naval Service, Fisheries Branch, have arranged to subsidize a fgreight refrigerator car for fresh fish leaving St. John, N.B., over the C.P.R. every Tuesday, when not less than 5,000 pounds of fish is offered.

This should be of material benefit to shippers in southern Nova Scotia and the fishing districts near St. John, N.B.

It may be of interest to our readers to know that Mr. A. H. Brittain has been appointed a member of the Transportation Committee of the Canadian Manufacturers' Association, and considering the fact that Mr. Brittain is Chairman of the Transportation Committee of the Canadian Fisheries Association, we are quite sure that his connection with transportation matters affecting general freight conditions, as well as the fish business, will be of valuable assistance to the business at large.

A veracious tourist informed the Editor that while travelling over the Grand Trunk Pacific the train was held up on the banks of the Skeena River for several minutes. Our tourist friend noticed schools of salmon making their way up the river, and being anxious to catch some, he took the clothes net out of his berth in the Pullman car and dropping it into the water managed to land several fine salmon before the train started again. The Grand Trunk Railway are to be congratulated for providing such entertainment for their patrons en route.

1915 SEPTEMBER FISH DAY CALENDAR 1915

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
-	-	-	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	-	-

September 15th and 18th Ember Days

Canada's Opportunity in Herring Packing - By J. J. Cowie

War conditions in the North Sea have so seriously interrupted the British herring fishery during the present summer and will surely continue to so interrupt it during the coming fall and winter, that very few pickled herring will be available for export from Great Britain this year.

In the course of last year (1914), the United States apart from its importations from Holland and Norway, imported from the British Isles, approximately 135,000 barrels of pickled herring. Where can the United States secure a similar quantity for importation this year?

Not in Great Britain because the comparatively small fishing fleets presently at work on the restricted areas cannot fully supply the demand for fresh and kippered herring for consumption at home; nor in the two herring producing countries of Europe, Holland and Norway, because, even if fishing were carried on by Dutch and Norwegian fishermen without let or hindrance, Germany, the great consumer of herring, will, with British supplies cut off, buy up everything available in Holland and Norway.

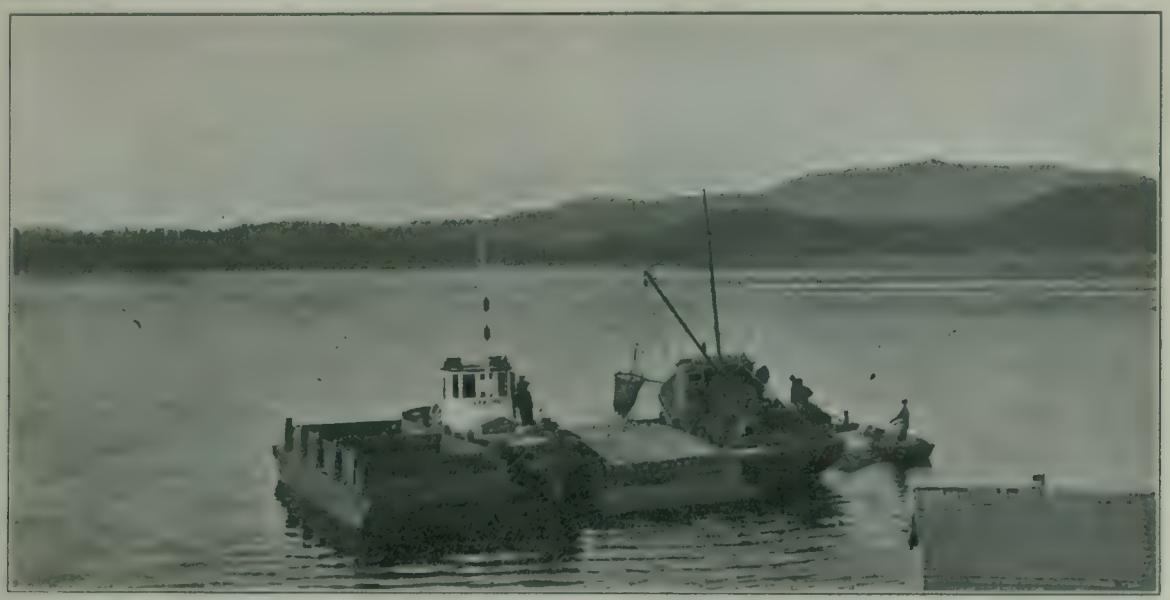
Here then is a great opportunity for enterprise on the part of Canadian fish merchants to at least supply the United States with what it meantime cannot get from Europe.

One fourth part alone of that trade would amount to more than the whole present annual exportation of pickled herring from Canada, practically all of which goes to other and cheaper markets.

Every fish merchant who handles pickled herring knows that in normal years the price paid in the United States for herring cured in the European style is high. In this abnormal year it is very high, as may be seen weekly in the columns of the New York Fishing Gazette. Packers must realize, however, that this market is extremely fastidious with respect to the quality and cure of the fish.

The kind of herring chiefly desired by the American market is a plump fish of from ten to eleven inches in extreme length when cured, and full of milt or roe which must be left in the fish. Spent fish and large coarse fish are entirely useless for this market.

Now we have abundant supplies of herring of a suitable size on both coasts. But with our present means of capture it may be somewhat difficult to secure any large quantities of this class on the American Coast before they come close to the shore, in a too ripe condition, for spawning. On the Pacific coast, however, during the winter months, herring of a size and quality similar to those taken at Yarmouth and Lowestoft, England, in October and November, swarm into certain of our harbors and can be taken readily in much greater quantities than at present.



Herring Fishing in Prince Rupert Harbour.

In order to capture a share of this trade with the United States, it is absolutely essential that the fish be cured and packed in accordance with the desires of the people who eat such fish.

The Scottish or European style of curing and packing is really a simple one, but the process calls for scrupulous care in carrying out its various details.

Any Canadian packers who may be desirous of engaging in this business should give close attention to Appendix 1, page 22, of the regulations, for the guidance of coopers and packers, in making barrels and curing fish for the official brand under the recently passed Fish Inspection Act, where will be found a complete description of the Scottish method of herring curing.

The classes therein described as "Full" and "Med-

ium Full' would be the most acceptable to the trade. The fish should be packed in half-barrels, preferably, of thirteen and one-third imperial gallons capacity, as defined in Clause 2, Appendix 1, of the regulations above referred to. To produce such a half-barrel the staves should be cut at twenty-four inches; the diameter of the end truss hoops should be fourteen and three-quarter inches, and the bilge truss hoops seventeen inches.

The coming into operation, this year, of the Fish Inspection Act gives to Canadian packers a unique chance of participating in this particular business.

Herring cured for that trade may be presented for

A Deckload of Atlantic Herring.

inspection to a duly qualified inspector and, if found to be packed in accordance with the Act, will be branded with the Government crown brand.

It should be clear to all in the business that inspected fish, bearing the Government brand as a guarantee of quality will more readily find buyers than uninspected, unbranded, fish, not only in this hitherto untouched market, but in any one to which pickled fish are sent.

Under ordinary circumstances it would possibly be a matter of much difficulty for Canadian packers to secure a place in this particular American market for their product, in competition with the Dutch and British product, in favour of which there exists a long-established prejudice; but in such times as the present, consumers cannot afford to indulge such a prejudice, and, if an entrance is now gained for Canadian fish, is should not be impossible to keep a hold at all times, provided the necessary care be exercised, firstly to secure the right kind of fish, and secondly to cure and pack them strictly as the consumers want them. It is to be feared, however, that so long as our fishermen, on the Atlantic coast especially, are left alone to cure their own fish as well as catch them, and this applies to mackerel as well as herring, we cannot expect to very speedily enhance the value of our pickled fish.

The fisherman should be free to devote his time and attention entirely to catching the fish, while the matter of curing and marketing should be undertaken by the fish merchants who, by making a special study of the markets and the tastes and desires of the consumers, would produce exactly what was wanted, and thereby widen the present outlets and increase the demand just as a few of them have taken a hold of and developed to such and extent the business of smoking and marketing haddock and other fish.

GERMAN FISHING STEAMERS.

Never, according to the "Hamburger Nachricten," were so many fishing steamers launched at German shipbuilding yards as during last year, in spite of delays caused by the war. In 1914 thirty new fishing steamers were launched from German yards, as compared with 25 in 1913, 18 in 1912, and 17 in 1911, while for 1910 and 1909 together the number was only 21. This activity, the journal explains, is due to the increasing consumption of sea fish and the great improvement in the business results which have been shown during the last few years by all the steam-fishing fleet, which on Jan. 1, 1914, numbered 250 vessels, with a total of 49,460 tons, has now been increased to 300 steamers, with a total of 60,000 tons. The steamers completed during last year represented about 7,000 tons, with an engine capacity of 12,800 h.p. They were all vessels of over 200 tons and between 350 and 450 h.p.

In the last few years, the German paper says, there had not been any great increase in the size of German fishing steamers, whereas both France and England have vessels twice the size of the largest under the German flag. Of the 30 new fishing steamers built in Germany last year 10 went to Altona, and 8 to Cuxhaven, and the rest to Bemerhaven and Nordenham, and a few abroad. The numerous large number of fishing steamers now being ordered in Germany is accounted for by the fact that German owners have determined not to order any more from foreign builders. German builders have also of late years received a number of orders for fishing steamers from Brazil and Iceland. At the present time, it is stated, the German builders have on hand so many orders for fishing steamers that the production for the current year will considerably exceed that of 1914.

BOOTH FISHERIES SECURE RUSSIAN ORDER.

Chicago—An authority on Booth Fisheries admits obtaining a large order from Russia for dried and canned fish, with still larger contracts pending which include canned meats.

One plant on the Pacific coast which showed a deficit last year now shows $500,000 profit.

The Ordinary Life of a British Deep Sea Fisherman

By H. M. JAMES,
In the *Milgate Monthly*

"Lucky lot o' perishers, I call 'em, with extra pay, precious little work to do, an' every night ashore; to say nothing of 'comforts,' such as mufflers, sweaters, an' rubber boots," said "Baby." "Compared with this it's a bloomin' gentleman's life I say."

"Baby," about five feet ten inches in height, possible forty-two inches round the chest, strong as a horse, and deck hand on the steam-trawler "Enth," let half-a-dozen spokes of the wheel slip through his huge, hard, and extremely dirty hands, spat vigorously, and repeated the observation, slightly varying the merely decorative words.

No landsman would dare to try to reproduce the language of a deep-sea fisherman, which is of the sea, and very salty; he can only serve it up as excessively saline as circumstances sanction, and trust to the recipient adding further seasoning to the full extent of his powers; though, even then, nothing will be obtained that faintly resembles the rich, full flavor which "Baby" got apparently without effort. For "Baby," born of the purple, was a veritable lord of language.

Indeed, with the exception of the skipper, the mate, the bos'un, the cook, two deckhands, and the second engineer, the only man abroad whose language was at all similar to "Baby's" was the remaining "decky"—he whom we called "The Hard Case." The first engineer, gloomy and taciturn, who seemed to be always wondering whether his second and the engines were "keeping her at eighty-eight," and the fireman, whose prominent eyes and remarkable shyness reminded one of Sir J. M. Barrie, seldom spoke, and after his first half-hour on board the Passenger decided to trust to his temporary shipmates retaining, somewhere, some slight knowledge of the language commonly used ashore.

"I tell you," said "Baby," expectorating again, for his "quid" was now in full flow, "I call 'em darned lucky. More money, less work, 'ome every night. And comforts! They're bloomin' toffs, that's what they are! I shouldn't be surprised if they jolly well go to sea wearing collars an' ties."

The "Enth" was within a few miles of the Isle of Man; "they" were the men—three or four thousand of them, in three or four hundred ships very much like the "Enth"—who were then mine-sweeping in the North Sea, and the Passenger assumed that the men were probably very much like "Baby" and his mates. The war was still young. Had we not told the crew of the Morecambe lightship that the battle of the Aisne was still going on? They had sent a boat to us to collect old newspapers, and they knew the name, for the struggle had begun when they last had news of events ashore, a fortnight earlier.

"Still, I should hardly have though you would envy them," the Passenger remarked, being innocent and ignorant. "Why do you?"

"You bloomin' well wait until you've seen us fellows at work on this bloomin' old boat, and then you'll know," was "Baby's reply.

And the Pasesnger, waiting, soon began to understand why "Baby" so spoke.

Now let it be clearly understood that the "Enth" is deemed, by all who know her, to be much superior to any ordinary trawler. Though she is not fitted, as some trawlers are, with electric light, she has acetylene gas on and below deck; she is well over 100 tons burthen, and therefore substantially larger than most of the 3,250 British trawlers whose names appear in the Fisherman's Nautical Almanack; though she has not been fitted with steam-steering gear—"Save the cost in paint alone, it would, in twelve months," says the skipper, "you saw how we scraped the pier, and that other boat scraped us coming out of harbor"—she is fairly easy to steer when wind and wave and all other considerations are exactly suited to her own personal requirements; and her engines, of 80 or 90 horsepower, are quite capable of driving her along at the steady ten knots an hour which a fisherman regards as a perfectly satisfactory speed.

She is high in the bows, having a bonnet over the foc'sle, low in the waist, rather high in the stern. Her engines are aft, giving her a stern draught of about fifteen feet, though forward she draws only six or seven feet. This is to give her towing power and meet the downward drag of the net. The upward sweep of her decks from amidships gives spring to the whole structure.

These details are perhaps rather technical. You learn the purpose of the underlying principles—as the Passenger learned why "Baby" envied the mine-sweepers—by seeing the boat at work. On the forward decks are steam winches and revolving bollards; there are heavy planks which, fitted into steel stanchions, form shallow wells to receive the fish; along each rail a net is neatly stowed; on each side, for'ard and aft, huge iron-shod wooden platforms hang from iron gallows or derricks, other similar platforms are lashed to the sides of the boiler house.

Space for movement on deck when work is in progress is strictly limited, for steel cables spring into grinding, rushing activity, forming a moving network above and around the wells, and run aft to the gallows. The only beauty of the steam-trawler is the stern, hard beauty of hemp, iron, steel, and steam forced to the perfect performance of very definite tasks for the benefit of man.

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As to the other means employed in the work—the men—the skipper has his cabin amidships, just where he gets the full benefit of the rattle and the roar, the snorting and the groaning of the two winches. For the present trip he shares these—the cabin and the noise—with the Passenger, sleeping on the sofa and allowing his companion to have the bunk. The cabin is about as large as a first-class railway compartment, and to get into it you have to climb into the wheelhouse and then descend a particularly steep companionway, for it has no doors opening on deck—none could keep the water out.

The mate and the first engineer have cabins opening off the saloon, which is in what a landsman has been known to call "the blunt end of the ship"; the second engineer and the cook sleep in bunks above the seats

that run round the saloon table and over the lockers in which most of the food is stored. Their share of noise is provided by the engines, and the screw. The bos'un and the deck hands have their quarters in the fo'c's'le. All on board have their meals in the saloon, five men being able to sit at the table.

The "Enth," I repeat, is regarded as being distinctly superior to the average trawler, and the skipper swears that the crew, as a whole, is quite a good crew. He also tells the Passenger that usually he neither washes nor shaves during a trip, whether it lasts eight days or a month, nor does anyone else, except the second engineer, who "reckons to have a wash every watch," because his job is so greasy, and sometimes shaves as often as twice a week. There is not a washbowl on board, nor is the decoration of the table over-elaborate. Tins of two-ounce, four-ounce, and eight-ounce calibre form the cruet, and the "napery" is not changed too often.

The food, however, though of course plain, is plentiful and good, fairly varied, and well cooked. Ted, who discharges the whole of the duties of a full kitchen staff, as well as those of valet to the skipper and personal attendant upon the Passenger is a really capable cook. He can produce puffed rice which is quite as good as his barm bread and plum duff, and also supplies us with bottles of a home-brewed, or rather sea-brewed liquor which he calls "stout," swearing it as potent a liquor as any ever drawn in Dublin.

Not the least of his responsibilities is that of seeing that the two-gallon tin kettle which serves us as a teapot is never empty, day or night, for the men drink enormous quantities of tea; an hour seldom passes without two or three of them slipping into the galley and draining a pint pot of the hot liquor.

Ted is always ready to help the Passenger to try to catch gannets, or to turn starfish into ash trays—an experiment that proves a most dismal failure, or scrape and clean "sea eggs." Also, in the evenings, whilst the skipper and the second engineer play euchre, never staking a halfpenny on the game, Ted will overhaul the former's clothes, patching and stitching with persistence, though without speed, whilst he reprimands the owner for wearing out his garments so quickly.

Is the "Enth" a good seaboat? At the end of the trip the Passenger was assured that she had not been really tested during the voyage, for though the month was October, the experts were agreed that the weather had been "good."

"You should have been with us last trip, when the water was waist deep on deck, and at times we could not see either rail."

The worst that we encountered in the way of weather was described by these specialists as "a smart breeze." Whilst it lasted the waves came over the weather rail, flooding the deck, and making the men at work there cling to anything that was handy, and the boat, whilst climbing upwards at an angle of forty-five degrees, rolled to thirty degrees on each side of the perpendicular, with remarkable celerity. "Oh, no, for a trawler she's all right and comparatively dry," the Passenger was assured. Whereat he wondered greatly.

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Steaming down to the fishing grounds, the skipper has the nets overhauled and repaired—probably taking a hand in the back-breaking labor, and working as vigorously as anyone with his "needle" and tarred and tallowed twine, "'mending one hole by making two," he says, as the meshes grow in number. The nets used by deep-sea trawlers, which cost about £100 each, are hand made, girls being employed in their manufacture; for no weaving machine yet invented will produce a net which has sides that are not straight. The net is, roughly, pear-shaped, with a slanting slice cut off the broad portion, for the top of the mouth of the net is considerably longer than the bottom, which may be sixty feet or eighty feet from end to end.

One of the wooden platforms which the Passenger saw hanging from the gallows is attached to each end of the mouth. It is there to keep the mouth open, and it is called a door. If the net is to be used on a rocky bottom, it has below the underlip a chain of wooden rollers or huge bobbins, which are supposed to lift it over the stones and so save it from being torn. They do not always accomplish that. The net having been cast overboard, the winch sets up its infernal din as the steel cables run shrieking and crackling off the drums, and as the trawler steams ahead the net drops astern and downwards.

The depth of water in which fishing goes on may be only twenty-four or thirty fathoms, it may be over 200 fathoms. In the latter depth the two drums may each pay off 1,000 fathoms of wire rope. The weight of the net and cables and of the fish which are swept up may be enough to reduce the speed of the vessel from ten knots an hour to three, although full steam is maintained.

Trawling continues for probably three or four hours before the net is hauled on board. When that has to be done the vessel is stopped, the winch winds in the cable, and, eventually, if the net is fairly full, it appears some yards from the side of the boat, a creaming of the water showing where it will come up, floated by the bodies of the fish.

Then it is pulled over the side by muscular effort, the whole of the deckhands helping. Wearing oilskins and seaboots, they heave at the net, bringing the catch a little nearer each time the vessel rolls downward. Fish caught in the upper meshes are dragged out and flung either upon the deck or back into the water, according to their possession or lack of value as food.

When the men, by putting forth every scrap of their strength, have hoisted in nearly the whole of the net a rope is run round it, the winch is set going again, and it is dragged forward and upward until it hangs above the deck, water streaming from it, its meshes made taut by the weight of the imprisoned fish. A man gropes about in the pouring cascade until he gets hold of the fastening rope. He pulls it, the tail of the net opens, and the catch falls out in a glittering, crashing mass which overflows from one well to another, detached fragments sliding along the decks. The net is immediately tied up again and pushed overboard for another haul. Then the dirty work begins. Tramping their way through the still living fish, the men seize them one by one and gut and clean them by a few smart strokes with their knives, flinging the dead bodies back on to the deck and throwing the entrails overboard. All the livers are kept, however. The fish are afterwards washed by turning a hosepipe upon them, and then they are thrown into the hold, to be packed in ice under the supervision of the mate, who keeps count of the quantity of each variety of fish that falls through the hatchway.

Half-a-ton of fish was considered a fair haul on the "Enth," but it must be remembered that the month was October, which is as bad as March for fishermen, and the two are the worst months of the year. Sometimes the bag is so full that its contents have to be

divided into two sections, which are hauled in separately. Sometimes, when the net is swinging inwards, it bursts, and the fish drop back into the sea. Sometimes it comes up empty, ripped into tatters as it has been dragged over rocky ground. That means hours of labor already lost, hours of extra labor to come, whilst the net is being mended. To what heights of language would "Baby" ascend, to what depths would he fall, if he were skipper when that happened!

Even as he is—a mere deckhand—"Baby" seemed more disapopinted than any other member of the crew when misfortune befel the nets of the "Enth." For this reason: the livers of all fish are one of the perquisites of the crew, and are sold to manufacturers of engine oil; the proceeds being equal to more than a pound per man, even when the vessel returns with less than half a full cargo. And the soul of "Baby" yearned for the livers of all the fishes of the sea.

The crew also retain for their own profit the bodies of the angler fish—the "monk," as they call it. And "Baby's" love for monks was only surpassed by his love for liver. For every fish has a liver, but few fish are "monks." The dogfish is despised and cursed by the skipper; the Passenger suspects that "Baby" would rather see the net full of dogfish than of soles; the sole has but a small liver—a mere wisp of a liver, such as no self-respecting fish would carry around, whereas the liver of the dogfish is a large notable, liver.

You see, "Baby" has a standing wage, plus his share of the "stocker," as the crew call the livers and the monks' bodies, whereas the skipper, like the mate, takes a proportion of the profits of a catch instead of a wage, each, however, sharing also in the stocker, and such distinctions make men take entirely variant views.

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Work goes on almost unceasingly on a steam-trawler. When not actually fishing, the boat is going from one ground to another. If the crew are not shooting or hauling in the nets, they are gutting fish, repairing the nets, or taking a turn at the wheel. They work seven days a week, all the year round, be the weather what it may. Their only chance of rest and change is between trips. It lasts perhaps thirty-six hours, and may come only once—seldom more than twice—a month.

Their lives are inconstant danger. Hardly a week passes without a brief paragraph in the newspapers recording that a trawler has been wrecked or sunk in a collision, so many lives being lost. Frequently wet to the skin, with only short periods of sleep, engaged in most laborious toil, their health and strength are always in jeopardy.

The deckhand says that fishing is the lowest of all forms of employment at sea, and wishes he was in the mercantile marine. The captain says the same, and the cook agrees. But none will say that he would really prefer a berth ashore, and the skipper and the Passenger have long discussions as to how the "Enth" could best be transformed into a yacht if the latter bought her and put the former in command, with the cook as chief steward—a post he says he would gladly accept.

When the men leave home they do not know when they will see it again. They and the boat have only one object—to catch fish, and it is entirely for the skipper to decide where he will take them, when he will bring them back. One good haul may cause them to spend days and nights in one spot, steaming to and from, or around, a fixed point, possibly a landmark, perhaps a buoy dropped overboard.

One fine, sunny afternoons; on grey, cold, and windy mornings; through nights of regal moonlight or howling hurricane, the work must and does go on. The man and the boat go forth with one obect only—to get fish aboard. Waves may come over the side, filling seaboots, swishing up the sleeves of oilskin coats, soaking the men from hair to heel; the decks become slippery with water, ooze, slime, grease, and blood, they rock and reel as the vessel sits ducklike among the rushing, foaming waves—the work must still go on.

Hands may be cracked by frost or stiffened by salt; they may be so cold that the knife and the needle can hardly be held; but the fish must be cleaned, the nets must be mended.

And down below the fireman must feed the insatiable maws which gape and cry for coal, and still more coal; the engineer, though he has no more eyes than an ordinary man, must see simultaneously the quivering fingers of half-a-dozen gauges and indicators. At its best, the men who work below and the men who work on decq lead a life of toil and monotony; at its work, a galley slave might shun it.

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And the Passenger, seeing these things, began to understand why "Baby" longed to be mine-sweeping in the North Sea.

MEAT PRICES GO UP IN ENGLAND.

Great increases in the prices of meat are disclosed in the report of the superintendent of the London Central Market, issued last night. He states that the supply of meats of all kinds for July, 1915, at the market, totalled 29,702 tons, as compared with 36,833 tons in July, 1914.

The price of fresh beef increased 43 per cent, while that of frozen beef increased 74 per cent. Fresh mutton increased 13 per cent, and frozen mutton 50 per cent.

QUEBEC INLAND FISH NOW COMES UNDER PROVINCE.

Dominion hatcheries in the Province of Quebec in which inland fish are propagated are now being transferred to the Quebec Government. Four hatcheries are involved in the transfer, those at Mont Tremblant, St. Alexis, Magog and Lake Lester, the fry in these hatcheries being that of different varieties of game fish.

This action of the Dominion authorities comes as a consequence of a recent decision of the Privy Council that the province owned the inland fisheries. Some years ago the Dominion transferred inland hatcheries in Ontario to the government of that province and is now following suit in the case of Quebec. Since the Quebec Government regulates the inland fisheries, it was considered anomalous for the Dominion to take the responsibility of propagating them.

There is still no change in the situation as regards the control of the tidal waters of Quebec, disputed between the Dominion and Provincial authorities. Both sides have agreed to submit a case to the courts, but have not as yet carried out the legal preliminaries to such action.

Who's Who in the Fishing World

Like many another successful business in Canada the firm of A. Wilson and Son, of Halifax, Nova Scotia was established by a Scotsman, the late Alexander Wilson. Mr. Wilson started out as a fish dealer in a small way in 1879 and through carefulness and thrift built up an extended trade.

His son, Mr. S. Y. Wilson, was born on March 15, 1868, at Port Errie, Banffshire, Scotland, and came to Nova Scotia with his father. He was educated in the Nova Scotia public schools and at the Halifax Academy. He entered his father's business in 1881, and received a most careful training in all the branches

MR. S. Y. WILSON.

of the fishery trade. He was made a partner in 1889 and was the principal manager of the firm for some years before his father's death in June of 1913. Under his capable direction the business has risen steadily to a premier position in the fishing industry.

Mr. Wilson has been active in everything that pertains to the welfare of his adopted city and country. For three years he served with much acceptance as member of the Halifax City Council. For twenty-six years he was a member of the 63rd Halifax Rifles, retiring finally with the rank of Captain. He is a crack rifle shot, and was Captain of the Halifax Rifle Team for several years. Curling is his principal recreation at the present time.

He has long been a student of fish life in all its phases. In 1912 he was appointed a member of the Dominion Shellfish Commission and his expert advice in that capacity enabled the Commission to make recommendations that if acted upon will advance very materially the best interests of the shellfish industry in the Maritime Provinces. Mr. Wilson is Vice-President of the Canadian Fisheries Association.

"The Government have taken steps toward the redemption of the oyster industry," said Mr. Wilson, "and it was certainly full time. The Canadian oyster beds were in a fair way of becoming exterminated. Wanton destruction of natural oyster beds has been almost invariably the rule. Why, only a few years ago the people of Orangedale in Cape Breton used to ship about 3,500 barrels of oysters yearly. At present these once splendid beds are yielding a paltry hundred barrels. A Massachusetts expert declares that the cultivable area for oysters covers 67,000 acres, is capable of producing not less than six million dollars yearly, and employing a population of 20,000 skilled and unskilled laborers. Now if such results are obtainable on the limited coast line of the State of Massachusetts, what are the possibilities on the thousands of miles of coast line of Canada's Atlantic shores?

"The dry fish trade in Nova Scotia is gradually becoming confined to the catch of the Lunenburg Bank fleet so that in many seasons, except for the Bay of Fundy supply, the exporting houses do not take the inshore catch into very serious consideration. Halifax now draws most of its dry cod from the Gaspe coast, the Magdalen Islands and Newfoundland. The three largest exporting houses here have established branches at St. John's, and to a certain extent meet their requirements by shipping direct to the consuming markets from the Newfoundland port.

"Now such a condition of affairs is regrettable not only from a Halifax but from a Nova Scotian point of view. Of course, the diminution of the inshore dried fish trade is due in part to the development of the fresh and canned lobster industry, the increased demand for fresh fish and the consumption of a yearly increasing quantity of fish for the Canadian and United States package trade.

At the same time the introduction of the steam trawler would revolutionize the dry fish industry in Nova Scotia. I don't refer to the operations of discarded steamers of the British fleet, but to thoroughly modern craft with a full equipment of men and supplies. The fish produced could be landed at the most convenient ports and cured to suit whatever market promised the best returns.

"The Nova Scotia pickled fish trade does not keep pace with requirements. At the same time it is well known that vast shoals of herring and mackerel are off our coast almost all the year. It seems to me that scientific research could be profitably utilized in this connection. Certain regulations for the pickled fish trade similar to those governing the fruit industry would also be beneficial. One thing is certain—the

Canadian pickled fish industry as a whole is capable of very large development.

"The time has come when the public should be made fully aware of conditions affecting an industry which is one of the mainstays of Eastern Canada. Some improvements are noticeable of late years in the administration of the Fisheries Department, but more are needed. The location of that Department is not conducive to satisfactory results.

"Everyone who has a grasp of the fishing industry in Nova Scotia will tell you that this Province is letting the wealth of the seas, which lies at her doors, slip from her grasp. We have one of the finest shore and deep-sea fishing grounds in the world. We have all the natural conditions favorable to the prosecution of the industry. We have men bred to the sea life. With all our advantages we should be producing actually ten-fold our present production. Fishing stands next to farming as the greatest industry of the Provinces. What is needed is the inauguration of a thoroughly progressive and efficient administration, the introduction of the best methods of curing and packing and some system whereby the movements of the various fishes can be followed. These reforms together with improved transportation facilities afford ample scope for the activities of the Canadian Fisheries Association."

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Three years ago the firm of A. N. Whitman and Son, Limited, celebrated its centenary. Abraham Whitman, the founder of the firm, established himself at Canso in May, 1812. This port had had a chequered career ever since the Cabots discovered the North American mainland. At times during the French wars the town numbered a fairly large population, but when Abraham Whitman settled there the population had fallen to five families. He was, however, impressed with the advantageous location so near the fishing grounds, and his faith in the place was fully justified. He steadily built up a business of considerable volume, exchanging merchandise for fish and fur, and shipping his fish principally to the West Indies, the Mediterranean ports and the Azores. The business was in turn carried on by his son, Abraham N. Whitman, and later by his grandsons.

Canso is now a thriving little town of about 2,000 souls, while a thousand more people live in the neighborhood. The Whitman establishment has kept full abreast of the development. From the beginning the Whitman family have been interested in fish. In 1907 the fish department was transferred to the Whitman Fish Company, Ltd. At the same time the cold storage department was made over to the Canso Cold Storage Company. In 1912 these two companies were brought into the Maritime Fish Corporation.

Mr. E. C. Whitman, the head of the firm, is keenly interested in the expansion of the fish industry. He is looking toward the time when the fishermen of Canso will be able to load their daily catch of fresh fish from boat to refrigerator cars in the shortest possible time. He sees no good reason why his home town, situated as it is on a peninsula that juts out into one of the greatest fishing grounds in the world, will not become the landing place of the fish supplies of Canada.

Twenty-five years ago when the Intercolonial was constructed to Port Mulgrave, twenty-four miles distant, the firm embarked upon the fresh fish business. Up to that time the fish trade of Canso was entirely in salt fish. Small shipments of fresh fish went forward to Boston and Montreal and this business has slowly but steadily developed ever since.

Mr. Whitman has always interested himself in municipal affairs. He was elected Mayor of Canso in 1901 and subsequently re-elected for ten years by acclamation. He is also prominent in the work of the Baptist Church, of which he is a member. He was educated at Phillips Academy, Andover, Mass., and at Acadia University, Wolfville. He is a member of the Alumni of Acadia, and a member of the American Fisheries Society, American Association of Science and the American Civic Association. His principal recreations are boating and travelling. He married Alice Gertrude, the daughter of the late Rev. G. M. Carey, D.D., of Ottawa. Mr. Whitman in politics gives his allegiance to the Liberal party.

MR. E. C. WHITMAN.

"I believe in Technical Education for fishermen," said Mr. Whitman, "especially for the younger men. It is full time that our young men awoke to the full requirements of the trade and to the methods that have for years been practised in other countries where —I must say—a product superior to ours is being placed on the market.

"Why, we should be progressive enough to be pioneers in improved methods. Let us at least not fail to adopt the best improved methods of catch and cure in vogue elsewhere.

"Side by side with the adoption of better working methods we should seek to keep our product persistently before the public mind. We should be more alive to the importance of exhibiting our product attractively at all fairs. We should arrange whenever possible for free fish lunches at public gatherings. We should encourage the attractive display of fish products in fish shops and grocery stores. In my opinion war conditions will increase the sale of fish as other foods become dearer. Let us strive for better transportation facilities, so that the inland consumer may be able to have his fish course as regularly and in as fine flavor as the dweller by the seaside."

Mr. Whitman is a man that combines fine culture with a thorough business training. Wide awake and thoroughly progressive his interests include everything that goes to the making of a finer Canada. He is one of the strong men in the East who are enhancing the reputation of the Maritimes.

THE FISHING INDUSTRY OF CANADA AND NEWFOUNDLAND

PRINCE EDWARD ISLAND.

The annual value of the Fisheries of Prince Edward Island for the year 1913-1914, according to the Dominion Fishery Inspector's returns was $1,280,477, made up as follows:—Lobsters, $743,180; cod, $115,-933; oysters, $85,509; herring, $82,257; mackerel, $81,-044; clams $76,424; smelts, $51,279; hake, $33,538; salmon, haddock, eels, tommycods, alewives, tongues and sounds, fish oil, amounting in value to $11,283, make up the balance.

The pack of lobsters this year was about 45,000 cases, a falling off from last year of ten per cent, and the average price was $16.00—a drop of $4.00. The war was mainly responsible for the difference in price. The fishermen this year received two-thirds less for their catch, being paid $3.00 per 100 lbs., where they had their own equipment, and $2.00 where the packer supplied it. The business employs 5,000 persons. The whole Island is literally surrounded by traps in the fishing season, and there are 200 canneries valued at $175,000 using 200,000 traps worth $325,000.

The principal fishing firms who both pack and buy Island lobsters are Matthew & McLean, Souris, Portland Packing Company, J. W. Windsor, H. W. Longworth and Company, O'Leary & Lea, with headquarters at Charlottetown, Fred McGee, Summerside, J. T. Myrick & Co., Tignish. The firm of Robert Simpson & Company of Halifax, with an office in Charlottetown are also large buyers of lobsters. The Eastern Canneries Company of Georgetown operate nine factories, the Portland Packing Company own the same number. J. T. Myrick & Co. operated about a dozen; Longworth & Co., three. Other large packers are P. McNutt & Co., at Malpeque, John Agnew, Alberton; B. W. Lepage, and Simon Pinland, Rustico. Lobster fishing has about reached the limit of its development in Prince Edward Island, but not so with cod fishing. This year the catch will be about the best for twenty years. It is capable of much greater extension than at present. So far the business has mainly been confined to the shipment of salted fish. Once the car ferry is built, a continuous cold storage system established, and provision made for sending fish from the Island to Montreal and other points without transfer, the fresh cod business will develop rapidly. The principal firms in the business at present are Matthew & McLean, Myrick & Co., and R. G. Jamieson at New London.

Cod fishing commences the middle of May to be dropped when the hake strike in August and September, and to be resumed in October and November. The West Indies Market takes the greater bulk of the cured fish.

The lobster factories consume for bait practically all the herring caught on the Island. In fact, they have to import some from the Magdalene Island. From about 7,500 to 100,000 barrels at the standard price of $1.00 per barrel are used in the season. An experiment was made with smoked herring at Georgetown, but it did not prove a success, as there was not a sufficient supply of fish.

The mackerel fishing industry which had practically laid dormant for the previous 20 years, revived two years ago, and shows signs of coming back into its own again. This year it is estimated that from 8,000 to 10,000 barrels valued at $16.00 a barrel will be shipped. The season for hooking opens the latter part of August. The principal shipping points for mackerel are Tignish, Alberton, Souris, and Morell. The principal shippers are Myrick & Co., Matthew & McLean, H. H. Cox and Cox Bros.

Oyster fishing formed the subject of an extended article in the last issue of the Canadian Fisherman, and needs only brief comment. It was then pointed out that the chief feature of the situation was the organization of companies for the purpose of cultivating the beds. The war had given the industry a setback and interfered with the sale of stock but the future of the industry is considered to be assured once financial conditions improve. The principal companies who have leased beds and are at work this season are the Imperial Oyster Company, capitalized at $215,000 with 1,400 acres. H. W. Stavert, of Summerside, is secretary. The McNutt Oyster Company, capitalized at $160,000, with 800 acres; W. E. Bentley, Charlottetown, is secretary; the Summerside Malpeque Oyster Company, $75,-000, with 60 acres, Fred Tanton, Summerside, secretary; the Belmont Oyster Fishery, $48,000, 120 acres R. H. Jenkins, Charlottetown, secretary. Among the other companies are the Bay Oyster Company of Malpeque, $150,000 capital; the Malpeque Curtain Island Cup Oyster Co., $95,000; the Southeast and the South-

west Malpeque Companies, capital $18,000 each. This industry is one of our most important assets, and once it is under way, it will prove a great source of wealth to the province. The yield from the natural beds this this year is estimated to be somewhere around 10,000 barrels, with a much smaller shipment from the cultivated beds. So far about 4,000 acres have been leased to the companies.

CANSO AND ITS FISHING INDUSTRY.

By CECIL BOYD.

Canso, as one o fthe oldest settlements in the Province (probably second in point of time); as a one-time seat of Government; and as the scene of many military and naval operations in days gone by; is an historic spot on the coast-line of an historic Province. For 400 years, more or less, it has been well and favorably known as a trading and especially, as a fishing centre. Under French ownership as under British, it was highly prized in that capacity; and if the primitive Redman ever sought in a crude way to ensnare occasional members of the finny tribe, then Chedabucto Bay must have witnessed such attempts.

The situation of Canso is much out-of-the-ordinary. Its extreme Eastern position has been largely instrumental in making it for many years past, one of the big submarine cable stations of the world. Take a map or chart of the Canadian Atlantic seaboard, with the great fishing-banks marked, and you will at once see how conveniently thereto it is placed. Where the Canadian mainland runs furthest out into the waters of the broad Atlantic, there— an outpost of the Dominion—sits Canso. Her feet are washed by the Atlantic waves; her face is swept by the fogs and breezes of the spacious sea; and in her ears the thousand voices of Old Ocean—the roar of surf, the foghorn's boom, the creak of sail and the engine's splutter—make daily speech.

As to the origin of the name, Canso, there are varying opinions. It is claimed by some to be derived from the Spanish Canso (a wild goose) because of the immens flocks of these birds, that used to fly past in Spring. Others trace it back to the Micmac Cansoke, meaning "Facing the frowning cliff." The spelling has undergone many changes, such as Campseau, Canceaux, and many others down to the present form.

At the risk of becoming tiresome to those who may have read former articles on the history of Canso, I shall go briefly over some instructive dates and events of pioneer days. In 1518, Baron De Lery, the French explorer, left some cattle at Canso, as well as Sable Island. In 1565, Savalette, a French mariner, began to fish in the vicinity, and had made over 40 voyages to it by the year 1607 or 1609. During these early years of the 17th century, Canso was visited more than once by DeMonts, the French Governor of Acadie. In 1607, some Indian graves were plundered of the beaver skins in which it was customary to enwrap the dead, by the crew of a Dutch vessel, which caused trouble among the natives. In 1688, Sieur de Pasquine, agent of Louis XIV., reported very favorably on Canso, and recommended it as a more suitable place for the seat of Government than Port Royal. In 1700, an official report of the same favorable nature was sent in. In 1713,

Steam Trawler at Canso.

the Treaty of Utrecht brought the mainland of Nova Scotia or Acadia under British rule. There were only three settlements of note at that time, of which Canso was one. In 1719, a report to the British Board of Trade calls it "the best and most convenient fishery in King George I's Dominions." Serious Indian raids took place during the next two years. In 1721, the Governor and an engineer arrived on the sloop Wm. Southack, made a survey of harbor and coast, and reported very favorably on the place. Gov. Phillips decided to remain. During the next few years, there was open strife with the native tribes. In 1725, Gov. Armstrong arrived and laid before a Council held by him in August, a list of the number of vessels, which had loaded fish at Canso up to that month in the year, for foreign markets. The number was 197. The same year, he wrote the Secretary of State, urging fortifications at Canso. He thinks it the best place for the seat of Government and proposes an assembly of 24 inhabitants to make laws for the Province. The population amounted to 49 families, and the New Englanders traded in the cod fishery on the coast to the extent of £150,000 yearly.

sembly, he asked that a sum be voted for the building and maintaining of a lighthouse at Canso. The salaries of a Collector of Duties and of a Waiter at Canso are included in the first estimate of the Provincial Civil List, the former £75, the latter £40.

During the American War of Independence, privateers were busy around Canso and the Nova Scotia coast generally, interfering greatly with the carrying on of the Fisheries, which were valued at about £50,000. John Paul Jones captured and destroyed two large vessels belonging to Geo. Smith, a Canso merchant, and many others fell a prey. About this time, a short canal was cut from George's Harbor to a cove on the opposite shore of George's Island. In 1787, Geo. Leonard was Superintendent of Trade and Fisheries at Canso, at which time the place was at a low ebb of fortune. In 1797, the Grand Jury at the Court of Sessions at Guysboro were sorry to be under the necessity of reprimanding Capt. Rupert George of H.M.S. Hussar, for his conduct in Canso Harbor (Sydney Co.) in sending an armed force on shore and "firing at the inhabitants employed in lawful occupations." A few years later, Patrick Lannigan of Halifax, purchased land from Geo. Smith, and built up quite an establishment, in both fishing and farming.

Fish Drying at Canso.

In 1728, Richard Phillips came back as Governor. He found 250 vessels and 1,500 to 2,000 men employed in catching and loading fish. In 1731 there were more fish at Canso than ships to carry them to market. The exports of dry codfish to Spain, Portugal, etc., amounted to 50,000 to 60,000 quintals. In 1733, the whale-fishery, a recent departure, seems to have been flourishing. In 1744, war broke out between France and England, and in May of that year Canso, being in a very weak military condition, capitulated. In 1745, the fleet from New England gradually assembled in Canso harbor on the way to attack Louisburg, and was detained some time by ice along the South Cape Breton coast. Canso was a lively and important spot that spring. The men of the fleet improved the time by drilling, the erection of a blockhouse, and a grand review on Canso hill by Gen. Pepperill just before sailing on April 29. In 1752, two schooners fishing near Canso were captured by Indians. In 1764, a township called Wilmot, in honor of the Governor was directed to be laid out at Canso and certain regulations prescribed as to licenses for fishing rooms. In his opening address in Halifax As-

During the war of 1812, crews of small vessels were not only in danger of being plundered by the enemy, but ran the risk of being impressed into the British service. This often lead to very young men, who, as a rule were exempt from the Pressgang, being entered as captains. It was during this period that Abraham Whitman of Chester settled at Canso and began business, to which we shall refer later. In 1820, David Barss, who was owner of a flourishing fishing concern at the Tickle or "Tittle," died suddenly, and his funeral was a rather unique ceremony. Halfmast flags were flown by the large number of craft in the vicinity, the coffin being placed in a big boat. This unusual hearse proceeded down the harbor, followed by no less than 50 other craft, loaded with mourners. At the lower or Eastern end of which they landed and wended their way up to the old burial-place, which was there situated.

At this time, relics of the military, such as cannon

balls, and the brass pieces worn in the soldiers caps of those days, were frequently picked up. The remains of earthworks and forts were still plainly to be seen on Grass Island. On Pettipas Head and Burying Island were many graves, and it is said that on the latter coffins would sometimes be exposed by the crumbling action of the sea on its banks. As time passed, trade with the West Indies and other foreign countries revived, and strange adventures sometimes paved the way of the intrepid mariners.

In 1866, when the Naval Brigade was being taken up in various parts of the Province, Canso was thought a suitable centre for a company. Accordingly, men were signed on, N.C. officers selected and all preparations made, but the movement died in its youth, with its ambitions unfulfilled. The storing of ice for commercial purposes in connection with the Fisheries was begun in 1867, and within the next five years

CANSO, N.S.

the packing of lobsters became established as an industry. A Prince Edward Islander named Brown and Alfred Ogden were the pioneers in the latter. The great August Gale of 1873 left a trail of destruction in its path, became an event from which to date other lesser happenings, and is well-remembered to this day by the older people. In 1884, the Canso Regatta, to become later a yearly institution, was first held. Since the present century came in, several Government aids to the Fisheries have been located here, as an important and outstanding fishing centre. Chief among these are the lobster hatchery, for the propagation of that precious shellfish and the Dogfish Reduction Works, which converts into saleable oil and fertilizer the destructive "dogs" thus finding a market for the shore fisher's bane.

About 25 years ago, experimental beginnings were made in shipping fresh fish to American and Western Canadian markets, from which great things have resulted. New and tasty ways of putting up various foodfish, so as to appeal more strongly to the Consumer's appetite, have been successfully applied, and the end is not yet. Almost any fish that swims the Atlantic waters (if any exceptions, they are very few) is handled at Canso.

We will now touch briefly on the principal fish-dealing firms, doing business at present, but to do so intelligently, we ought, in some cases, to refer back a little. In or about 1811, Abraham Whitman, a shipbuilder and timber merchant of Chester, chanced to call at Canso on his way to Miramichi. Impressed with the natural advantages of the place as a fishing centre, he started a business the following season, and subsequently located there permanently. He built up a big trade with the West Indies and other foreign parts, which trade was successfully carried on, though in gradually changing channels as conditions changed, by his son and later, by his grandsons. New branches were added, among them a Cold Storage plant. In 1907, this department was taken over by the Canso Cold Storage Co., and the fish business became the Whitman Fish Co., Ltd. Two years later, both these companies were merged in the Maritime Fish Corporation which now operates them, H. F. Robinson being the local manager.

An old and well-known firm doing business in Canso is that of A. Wilson & Son. They opened a branch over 20 years ago (about 24, I am told) and have been operating at their present stand for all but two years of that time. They began by buying fresh and salt fish, after a few seasons erected icehouses, and during the last ten have added a boneless fish department, as well as smoke houses. From these are turned out annually large quantities of boneless, fillets and finnan haddies. A. A. Zinck, a native of Lunenburg Co., has

been manager of the local branch since about 1897, and was an employee of the firm in other capacities before. In the last few years, they have made extensions and improvements, and the plant bears evidence of general prosperity.

Matthews & Scott of Canso is a branch of the Queensport firm of that name. Mr. Robt. Matthews of the latter place is a native of Canso, who, embarking in the fish business many years ago, has, in partnership with his brother-in-law W. P. Scott, met with success. Their stand in Canso is well situated, for supplying the banking schooners with ice and provisions, of which they make a specialty, having several large icehouses, very conveniently situated and fitted with up-to-date steam-hoisting gear. W. G. Matthews is Canso manager.

Portland Packing Co. has been packing lobsters in Canso since the early '70's. Alfred Ogden, one-time Federal M.P. for Guysboro Co., and now Superintendent of Lobster Hatcheries, and who claims to be the first to erect a factory in Eastern Nova Scotia, became first Manager. For some years past, P. T. Smith, a descendent of the Geo. Smith already mentioned, has held that position. Last summer, some new buildings were added, improvements carried out and the firm launched out into a general fish business instead of confining their operations to lobsters.

Mr. A. Fader, who was in charge of the North Atlantic Fisheries during their stay here, is now conducting a general fish business at his old stand.

It is plain that the fortunes of Canso have ever been closely bound up with the sea, and the sea, true to her traditions, while supplying the backbone of Canso's livelihood, has ever been diligent in exacting her toll of precious lives. A sudden squall, a cranky boat, a treacherous breaker, a little carelessness, sometimes a little of several causes combined has made a good many widows, a good many orphans, and a good many mourning parents.

The writer (at rather short notice) has attempted to give briefly, and, of necessity, in a rather incomplete and imperfect way, something of Canso's chequered career from the standpoint of her chief industry. He knows that much might be written from other standpoints, such as the purely military, the historical and others, but not here, and now, allow him to moralize a wee bit in closing.

The past of Canso has certainly been a romantic and eventful one, but any past is only useful in relation to the future. The town, no less than the individual or the nation, that is content to gloat over things achieved however great and glorious those things may be, has largely closed the tale of its usefulness.

To-day Canso is looking and longing for a fairer and more fruitful future. She needs many things to keep up with the times. She needs more live journalistic advertising; she needs the advent of the iron horse, with increased transportation facilities and others "to numerous to mention"; but above all, she needs the faith in herself and her destiny, which is not content with wishing, but finds its natural expression in hopeful and willing work.

The Maritime Provinces

Somehow or other, the word "Fish" in Canada has always been associated with the Maritime Provinces. This is not to be wondered at, for the average man or woman picked up this idea during schooldays when the history books told us of the settlement of our eastern shores by the cod-fishermen of Europe and the geographies dilated upon the famous fishing "banks" off the Maritime coasts. The fishing industry of Canada certainly looms large in the Eastern Provinces, and has been part and parcel of the settlement of the country.

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The Maritime Fish Corporation, Ltd., incorporated 1910, was the outcome of several prominent firms in

250,000 lbs. fish being dried at Maritime Fish Corporation, Digby, N.S.

the Maritime Provinces, who now have established branches at Digby and Canso, N.S., with executive offices at Montreal. The Company have buying stations on a great many parts of the Coast, but for general management the business is concentrated at Digby and Canso, with executive offices at Montreal.

The Directors of the Company are all prominent successful business men of Canada, and the general management of this Corporation is in the hands of Mr. Alfred H. Brittain, who makes his headquarters at Montreal. The Secretary-Treasurer of the Company is Mr. Harold G. Connor, who was born in the city of Halifax, and brought up on Atlantic Sea Foods as a diet. The Digby, N.S., Branch is under the management of Mr. H. B. Short, who has had a long experience in the fish business, and the General Superintendent of the Digby Branch is Captain Howard Anderson, a man who has had alife-long experience in fishing and fish curing in all its different varieties. At Canso, Capt. H. F| Robinson manages the plant,, and is well liked by those with whom he comes in contact.

The company have an efficient sales organization, and were the first people in Canada to operate steam trawlers on a successful basis, being the owners of the steam trawler "Wren," which afterwards developed into larger and more modern steamers, all with a view to having a uniform and regular supply of fish. In addition to steam trawlers, the company are also owners of modern schooners, including the "Dorothy M. Smart" and other smaller craft.

The company started out to develop an inter-provincial trade in fresh and smoked fish, feeling that there was a good opportunity to bring sea fish to the inland centres, and largely through their efforts, and with the assistance of the Department of Fisheries, the company's business has grown every year, until at present they are one of the largest shippers of fresh sea fish, and the largest shippers in Canada of mild cured smoked Finnan Haddies, which have now become a staple article of food with the public in the inland centres. Since the company was organized, the business has also developed a large dried and salt fish trade, and export large quantities of dried and salt fish. The company's trade in North America extends from Newfoundland right through to the Pacific Coast, and in addition to the export business, a large trade is done with the United States.

* * *

The Lockeport Cold Storage Company, Ltd., is located at Lockeport, N.S., in Shelburne County, and some seven miles from Shelburne. The plant is a modern one in every respect, with a large cold storage, freezer, smoke houses, wharves and outfitting stores. The port is located within easy distance of the principal offshore fishing banks and the cold storage handles an immense quantity of fresh, frozen, smoked and salted fish yearly; shipping to the United States and to the inland markets of Canada. Mr. W. M. Hodge, is the President and Manager of the company, and under his management, the Lockeport plant has taken its place among the successful fish producers of the Maritime Provinces.

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Other fish producers located in Lockeport are Messrs. Swim Bros., and Mr. H. R. L. Bill. Both firms handle fresh, frozen, smoked and salted fish and buy from the large fleet of fishing craft which makes Lockeport their headquarters.

Sandy Point at the entrance to Shelburne Harbor, is a favorite anchorage for Bank fishing vessels stormbound. It is also a handy place for running in to get supplies and a large fleet call in there during the course of a year. Mr. John H. Thorburn, who does a fish business at this place, also maintains a large general store and the majority of his customers are the "Bankers" who shoot in to Sandy Point to do their shopping. With so many customers coming in from sea, Mr. Thorburn has to keep well posted on the War News, and be able to answer all enquiries. With the development of the fish business in Canada, there is not the least doubt but what Sandy Point will become a large fish producing centre and Shelburne will regain some measure of its former importance, which it had in the days of wooden ships. At the present time, the town has a large interest in the fishing industry, owing to the number of fishing schooners which are built there by the McGill Estate, W. C. McKay, Cox & Co., and others.

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Yarmouth, N.S., is the centre of the lobster fishery of Southern Nova Scotia and the products of the fishing grounds in the locality are shipped extensively to the Boston market. The town is the terminus of the Boston-Yarmouth line of steamers and large quantities of

Lockeport Cold Storage, Lockeport, N.S.

fish are shipped to the U.S. markets through the port. Located handy to the well known Cape Shore, Seal Island, Lurcher Shoal and Brown's Bank fishing grounds, Yarmouth is a favorite shelter port for the offshore fleets, and also a depot for fishing supplies. The Gateway Fish Company, Ltd., have a plant there and specialize in putting up salt fish products including a brand known as "Threaded" fish. Almost all of the firm's output is exported to Great Britain. While there are no large offshore fishing craft operating out of the port, yet there is a numerous fleet of shore fishermen in the locality who ship their fish to various markets. The Consumers' Fish Company ship fresh fish to Boston, and many American vessels discharge there and ship their fares across. Yarmouth County is famous for its fishermen, and are to be found in great numbers in American fishing vessels. Many of the successful ""high line" skippers in Gloucester and Boston vessels hail from the County.

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Halifax, N.S., is the headquarters of a number of large fish producers and exporters. The head office of Messrs. Robin, Jones & Whitman, Ltd., salt fish mer-

chants and exporters, is located there, and this firm is one of the oldest in the fishing industry of the Dominion with branches all over the Atlantic Coast. Mr. A. Handfield Whitman, Managing Director of the firm, is President of the Nova Scotia Branch of the Canadian Fisheries Association, as well as Director and Chairman of the General Improvement Committee of the main Association. Mr. Whitman is particularly well qualified to fill these offices as he has been practically brought up in the fish trade, and is continually working for better methods of catching, handling and curing fish—not only in the interests of his firm but for the general good of the fisheries of Nova Scotia.

Mr. S. Y. Wilson of the firm of A. Wilson & Son, Halifax, is another earnest Association official holding the offices of Vice-President of the main Association, and also the Secretaryship of the Nova Scotia Branch. A personal sketch of Mr. Wilson appears elsewhere in this issue.

Among other Halifax fish firms, long established and engaged in various branches of the industry, may be mentioned Messrs. N. & M. Smith, Ltd.; F. W. Bissett & Co., Farquhar & Co., Dominion Fisheries, Ltd., Neville Canneries, Ltd., H. & R. Silver, National Fish Co., Ltd., R. H. Williams & Co.

* * *

Lunenburg, N.S., is famous as the centre of Canada's great salt fishing industry and the headquarters of a large Bank fleet numbering over 125 sail with crews of some two thousand men hailing from the county. The Lunenburg fishermen take a great pride in their vessels and the majority of the fleet are well fitted schooners of the semi-knockabout type ranging from 70 to 125 tons fishing either by handline or by dories. The bulk of the fish caught by the fleet is salted and dried for export to the West Indies, South America and the Continent. Among the many firms engaged in the fish business in Lunenburg are Messrs. Robin, Jones & Whitman, Ltd., Zwicker & Co., W. C .Smith & Co., Adams & Knickle, La Have Outfitting Co., John B. Young, and J. Ernst & Sons, Mahone Bay. An extensive business in salted fish is done with the Canadian market—particularly in the shredded boneless codfish lines.

* * *

Jutting out into close proximity to the fishing banks of the Western Ocean, Cape Canso is the easternmost point of the mainland of Nova Scotia In the vicinity lie Canso Bank, Misaine Bank, Artimon Bank, Middle Ground and Bank Quero—the best of fishing grounds. Inside of the Cape is located the town of Canso—old in historical associations and founded by the fishermen pioneers of three hundred years ago. Though not actually engaged in producing fish nowadays, the firm of A. & N. Whitman & Son, Ltd., had much to do with fishing in the past, and their name is connected largely with the growth of Canso as a fishing center. The firm was founded over a century ago by Abraham Whitman who established a trading post and shipped salt fish to the West Indies and Europe. When the railroad was built to Mulgrave, the Whitman firm, turned their attention to the fresh fish business with the inland markets of Canada and commenced shipping to Montreal and other points in Canada and the United States. Under the management of Mr. C. H. Whitman, the fish business of the company developed and a large cold storage, smoke houses and a fully equipped plant was built and Canso became one of the greatest fish producing ports on the Eastern seaboard. In 1909, the Whitman Fish Company, Ltd., merged with the Maritime Fish Corporation, Ltd., and the Whitmans turned from the fish business to the development of their gen-

The Fishing Fleet in Lunenburg Harbor.

eral store business which is now under the management of Mr. E. C. Whitman and Mr. H. A. Rice. A personal sketch of Mr. E. C. Whitman appears elsewhere in this issue. Mr. Rice, the Manager of the present company, is a native of New Glasgow, N.S., and was for a considerable period travelling representative of the firm in Quebec and Ontario while they were engaged in developing the fresh fish business. When the firm turned over their fish department to the Maritime Fish Corporation, Ltd., Mr. Rice turned from supplying fish to fishing supplies, and helped largely to develop the considerable store business which his company enjoys. Several times Mr. Rice has been elected Mayor of Canso, and takes a great interest in the progress and development of the fishing industry of the port.

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Not far from Canso, at Queensport, N.S., the firm of Matthews & Scott have their headquarters and do a general fish business—shipping fresh and cured fish to the inland markets. Mr. W. P. Scott is a Director of the Canadian Fisheries Association, and one of the men responsible for its organization.

Canso is the headquarters of a famous little fleet of small schooners—two and four dory boats which fish on the grounds in the locality. There are a large number of these craft owned in the locality, and they reap quite a large harvest from the prolific fisheries of the adjacent waters. Their fares are bought by the Maritime Fish Corporation, Ltd., Matthews & Scott, Portland Packing Co., A. W. Fader and J. W. Sproule. The fish and fish products exported from Canso last year amounted to 7,875 tons.

The Hawkesbury Fish Company is located at Port Hawkesbury, N.S., and have wharves, cold storage and smoke houses there. Mr. Percy Boutilier is the manager.

* * *

The firm of W. S. Loggie & Co., Ltd., have their headquarters at Chatham, N.B., and branches at various places on the New Brunswick coast. The firm commenced business in 1874—Mr. W. S. Loggie, M.P., being the founder—and they are producers of various kinds of fish, fresh, frozen and cured as well as packers and canners of lobsters, Atlantic salmon and shippers of mackerel, smelts and sun dried codfish to European markets. Mr. J. Kerr Loggie, Mr. W. S. Loggie's eldest son, was formerly in charge of the business, but is now at the front fighting with the Canadians in France. Mr. Loggie's youngest son has also gone to the war. Mr. Leigh J. Loggie assists his father in the management of the firm. Mr. W. S. Loggie is a Director of the Canadian Fisheries Association and Member of Parliament for Northumberland County, N.B.

Homeward Bound! A Nova Scotia Bank fishing schooner.

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Messrs. Connors Bros., Ltd., have a fish warehouse and plant at Black's Harbor, N.B., on the Bay of Fundy. For many years the firm have specialized in canned sardines and kippered herring, and in spite of the competition in these articles from Europe, the "Brunswick Brand" put up by Connors Bros., have held the market in Canada and sales are increasing yearly.

Messrs. Leonard Bros., have a branch of their business in St. John, N.B., under the management of Mr. Walter Leonard. The Head Office of the Company is in Montreal where Mr. D. J. Byrne, the managing partner, attends to the selling and distributing end of the business. Mr. Leonard is a Director of the Canadian Fisheries Association.

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The Grand Manan Fish Company commenced business in 1907 at North Head on the Island of Grand Manan, N.B. The original premises were completely destroyed by fire and the present plant is entirely new and modern in every way. The company specialize in hake, cod and pollock and salt and dry a considerable quantity each year. The firm have a fine wharf with extensive fish flakes for sun drying and a large loft for storing dried fish. Supplies are bought from the local fishermen who operate on the fishing grounds in the Bay of Fundy.

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The North Shore of New Brunswick is the scene of operations of several large fish firms among them being Mr. Richard O'Leary of Richibucto; Mr. Fred Magee of Port Elgin, Mr. P. Paturel of Shediac and Pointe du Chene, and Messrs. A. & R. Loggie, of Loggieville. A considerable quantity of lobsters are packed during the season by these firms and they also do a general fish business.

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The Gaspe coast of Quebec has for hundreds of years been the scene of extensive fishing operations, and the dried fish industry of Gaspe Basin, Perce, Paspebiac and other ports date back to the original settlement of the Dominion. The dried fish trade was first started by the Fruings, LeBoutiliers, and the C. Robin Collas Company—pioneers who came from the Island of Jersey and established fishing stations upon the Gaspesian peninsula. The trade has been prosecuted by them for over a century and Gaspe fish were carried by them to the Brazils in the famous Jersey brigs. The present day trade in dried fish is just as extensive as in the past and most of the catch is exported, but a great quantity of fresh fish, including the famous Gaspe salmon, is shipped to inland markets—the United States taking the bulk. Messrs. Robin, Jones and Whitman, Ltd., of Halifax, have branches everywhere upon the coast and on the Baie Chaleur. Among other firms engaged in the fish trade are Messrs Fruing & Co., at Grand Greve and other places; Gaspe Fish Co., J. W. Winsor, lobster packer; Messrs. Leonard Bros., Wm. Hyman & Son, Messrs. C. & H. Kennedy, and several independent buyers for wholesalers in the inland markets.

THE NEWFOUNDLAND FISHERIES FOR THE PAST YEAR.

By J. W. McGRATH.

The Fisheries Report of the Newfoundland Government has just been published for the fiscal year ending June 30th. For the year there were exported from Newfoundland 1,247,314 quintals of codfish, valued at $8,071,889.00. For the corresponding period of the previous year the amount exported was 1,408,582 qtls., valued at $7,987,389.00.

Of this the four principal Mediterranean markets secured 593,821 qtls. distributed as follows: Greece, 69,602 quintals; Portugal, 153,023 qtls.; Italy, 170,634 qtls.; Spain, 200,526 qtls.

The Brazilian markets received 462,233 qtls. compared with 417,155 in the preceding year.

Pickled codfish to the amount of 111,202 qtls. was exported; 103,991 qtls. entered the United States, and 4,470 qtls. went to Canada. Before the reciprocal arrangement between this country and the United States, which was enacted three years ago, little if any of this product entered the States. The total fish products that entered the United States last year under the new Act of free entry had a value of $547,759. The fisheries report relative to this industry says: "The export of pickled fish increased considerably and had the effect of strengthening the prices of the dried article by rebating a quantity of fish which would otherwise have come into competition with it."

The total fishery products exported from the country last year had a value of $10,919,677 compared with $10,242,536 for the previous year.

The value of the various oils exported was $902,496; out of this amount only 26,218 gals. of cod oil refined were shipped away, having a value of $17,010. Says the report: "When this quantity is compared with the amount realized by our competitors it can easily be appreciated that we are not attempting to get anything like proper returns from this portion of our fishery."

In the prosecution of these fisheries it is estimated that there were used last year 6,500 cod traps, 2,000 schooners, 25,000 boats from 4 to 30 qtls., 1,200 boats from 30 quintals up, and some 300,000 nets and lines. Besides this there is the tonnage of some thousands of tons used in the seal and whale fisheries.

In the Labrador fishery there were exported from the coast direct to market 91,049 quintals of cod valued at $361,445. This shows a decrease on last year's shipments of 20,827 quintals valued at $164,369. Besides this, however, there were brought to Newfoundland 215,000 quintals.

In the previous year there were 111,876 quintals exported direct from the Labrador coast to market. Every year the amount shipped thus is becoming less and less. Much of the fish now is brought to Newfoundland, where it is cured better and commands a higher price in market. Five years ago the amount shipped direct from Labrador was 288,826 quintals. The number of men last year engaged in the Labrador fishery was 6,081. The number of vessels employed were 908.

The fleet of Newfoundland schooners fishing on the Grand Bank is shown to be one more than the previous year. There were 105 schooners with 7,790 tonnage and carrying 1,892 men. The result of the voyage was 124,067 quintals or 28,307 quintals less than for the previous season. The average catch per vessel was 1,181 quintals or 66 quintals per man. The largest number of schooners were from Grand Bank, whilst Burin was second. From Grand Bank 29 vessels cleared, crewed by 546 men and these obtained a catch of 35,368 quintals. There were 98 Canadian Bankers that obtained licenses to purchase bait on the south coast during the year. These vessels all sought Caplin.

There called at Newfoundland ports during the year the following fishing vessels for fishery and trading purposes:—The John R. Bradley from Gloucester, trading buying cod; The Essex, from Gloucester, trading buying cod; the L. M. Nickerson, from Bucksport, trading buying cod. The Gladiator from Bucksport

took a cargo of frozen herring; the William Matheson from bucksport took a cargo of frozen herring. A large part of our banking fleet has baited prior to starting to continue fishing. Many of these schooners will proceed to the Straits of Belle Isle rather than to the Banks to continue the fishery there till the season ends. Amongst the fleet that will fish on Labrador is the Schooner Donald Hollett, Capt. S. Hollett. This schooner will try a new venture. On board the schooner Capt. Hollett has placed several miles of gill nets which will be used instead of trawls. In accordance with this the 11 ordinary double dories will be replaced by 23 single handed ones. If the fish is plentiful by this means a load will be secured much quicker than in the ordinary way. Capt. Hollett has to date for this season landed 3,500 quintals of codfish.. Before the season is over he expects to have landed close on 5,000 quintals.

In accordance with the command of the French Minter of Marine, the great fleet of St. Pierre bankers, steam trawlers, the metropolitan fleet, and small boats are not engaged in the fishery in Newfoundland waters on a scale anything like in other years. Altogether, however, from all France there are this season some eighty craft fishing for cod on the Banks.

Up till three or four years ago Portugal annually equipped a fishing fleet and sent it out to Newfoundland to fish, but the catches secured were on the whole only average and besides the fishermen received little if any encouragement from their Government in the nature of a bonus. The fleet accordingly dwindled and last year none came out. This year there are no fewer than forty engaged. Most of them are square riggers. They hope to be able to obtain good prices for their catch, especially in France. These vessels have done fair to date.

It is interesting to note the financial support that France gives yearly to the support of her fisheries. The amount spent last year was 5,627,396 francs (£225,000). Of this amount £196,000 were spent on the "grand" fisheries whilst the balance, £29,000 was spent on the coast fisheries. For the "grand" fisheries £20,000 approximately went as bounty for equipment as follows £15,000 for Newfoundland £4,700 for Iceland, and the remainder £300 for the North Sea. £135,000 were expended as follows: £34,000 on imports and the remainder, £101,000, were spent on exports. Superintendence and assistance to fishermen cost the remaining £60,000. How well France has looked after her fishermen is well shown here. Of all countries she gives the largest financial support to sea fisheries. It must with a view to fitting men for naval purposes. In not be overlooked, however, that this is given largely connection with the cod fishery last week a most important judgment was handed down in the Supreme Court. It has been usual ever since the inspection of the Newfoundland fisheries that when shipments of fish were made between fisherman and local fish merchant the price asked was marked on the bill of sale "current price." This vague term was heretofore satisfactorily decided when the fisherman came to settle up. Last year, however, a dispute arose where a fisherman claimed he had not received the current price for his fish. The fisherman sued the merchant. The lawyer representing the fisherman claimed that "current price" meant highest price—for the particular brand. The merchant claimed that it meant the price paid for the greatest amount—of that brand. The judge sustained the merchant, and the case was dismissed. This decision will mean that a number of old institutions and systems in connection with the fisheries will disappear adn the fishery will be carried on in future thereby in a businesslike manner.

The use of motor boats in prosecuting the Newfoundland codfishery this summer has been attended with phenomenal success. Last year these boats first came to be generally used by the fishermen, this year thousands more have been requisitioned and much better work has been the result.

In a year or two more, at the present rate there will be few, if any, fishermen engaged who will not use a motor boat. In a year or two we believe that statistics will show in larger catches of fish secured the value that the motor boat is becoming to the fishermen.

The report has this to say on our herring fishery: "Herrings are invariably plentiful in the bays and arms both in the spring and fall, where the physical conditions are favorable. There is no necessity for our fishermen to go off miles from the shore on the ocean with expensive appliances to catch herring, when they are in abundance at their very doors all the year around."

For the past year there were exported from the country 75,190 barrels of pickled herring valued at $319,532, or at the rate of $4.21 per barrel. This is the highest price ever paid. The product of the preceding year sold for $3.10 per barrel. Besides this amount of herring exported in the pickled state 39,805 barrels of bulk herring and 12,435 barrels of frozen herring were taken from Bay of Islands and Bonne Bay by American and Canadian vessels. This amount was taken away in fifty-seven cargoes and forty-nine craft. Two cargoes were taken by the following schooners:—Atlanta, Athlete, Maxine Elliot, Arkona, J. J. Flaherty, Aloha from Gloucester, and the J. D. Hazen from Lunenburg.

Relative to the pickled herring industry the Report says: "In compiling the above figures one is constrained to wonder where the money is realized in this fishery at the above average prices ($4.21 per brl.) when the incidental expenses are deducted. Take, for instance, the barerl and salt which cost $1.00, freight from curing centre to St. John's, usually thirty cents, cooperage and repacking at St. John's very often another 20 cents cartage and freight and insurance to consumption centres which can be placed at 90 cents a barrel and which brings the total average cost to $2.40 per brl." Leaving little profit for both the fisherman and the exporter thereby.

Adds the Report: "Considering the ascending cost of foodstuffs all over the world I feel that if this course be adopted (the enactment of legislation to properly govern the prosecution of the fishery) that our herring trade will rise in importance, and in a very few years it will be second only to the codfishery."

The Report of the Officer from the Scottish Fishery Board who recently investigated our herring fishery, states that notwithstanding the dense shoals all around the coast, and the fine quality of the fish it has remained as yet "comparatively undeveloped." The herring fishery during the past spring, especially on the northeast coast in the district of Green Bay, was one of the best on record, and if anything like proper preparation and up-to-date equipment were at hand, wonderful returns would have been made. As it was, the value of the fishery to that part of the coast was at least $150,000. The "Sun" commenting on the failure of that fishery to measure up to expectations, said there are two reasons which account for it. "One is

greed and the other is carelessness." The men in their hurry to fill up the barrels have packed some improperly cleaned and salted, and also a large number of bad and leaky barrels were used in which to pack. It is hardly fair to place blame on the individual or any company so operating. The laws should first be regulated to make this practice unprofitable. No fishery suffered more during the past year both intrinsically and externally than the lobster fishery.

For the year there were 11,017 cases packed, showing a decrease of 5,549 cases for the preceding year and 15,131 for 1912 when the catch was 26,148 cases. At the beginning of the season prices ruled as high as $24.00 and found few who were willing to sell at this figure. After the war lobsters fell to $8.00 a case. Altogether, for the fishery of 1914 there were issued 2,463 licenses, 4,346 men engaged. These used 227,194 traps and the total number of lobsters caught that went to make up the 11,000 cases packed were 2,574,736. The first serious and effective attempt made to conserve this fishery was begun last year. The following letter was sent to the lobster fishermen by the inspector of the fishery. "As you are aware, the lobster fishery is falling year by year, owing to the wholesale destruction of the egg bearing lobsters by the fishermen engaged at that industry. . . . You will therefore be careful to save and place in some reservation selected for the purpose all the lobsters showing any indication of spawn let it be ever so small, to carry out their work of incubation and by keeping a strict account of the number (which you will be able to prove) you will be paid by the department of the Marine and Fisheries ten cents for every lobster so preserved."

The result of the season's propagation shows that 50,541 egg bearing lobsters which ordinarily would have been packed were preserved for their work of procreation, as well as the saving of at least a half a billion eggs, which will mean at the lowest estimate a production of a half a million mature lobsters. This is the first practical step taken so far, for the conservation of this fishery.

The salmon, which are always plentiful around the coast and which are a great potential resource to the country, are not at all extensively prosecuted as a fishery. During the season of 1914 about 300 licenses were issued to prospective packers. Over 400 traps were used. These caught 21,355, salmon, which when packed made 1,500 cases. The price paid by buyers averaged $5.00 per case. The export of fresh salmon for 1914 was 251,182 pounds valued at $22,000. There were also some 10,000 pounds of smoked salmon exported during the year. The decline of the whale fishery from year to year reached its climax last season. Of the six ships operating during the year, one alone paid a dividend. She secured 68 whales. Altogether in this fishery there was obtained last year 161 whales, which yielded 150,000 gallons of oil yielding but 80 tons of bone, compared with 421 tons for the year previous. It is hard to account for this general decline when it is remembered that fifteen years ago the annual catch for a steamer was ordinarily 250 fish, while the total catch was about 1,500. So disastrous were last year's results that this year only two factories are operating. It is not improbable that the whaling steamers thus left disengaged may again engage in hunting the arctic or white whale. Till ten or fifteen years ago many Dundee whalers and some Newfoundland ships engaged in this fishery, but of late years it has been allowed to remain commercially abortive. The report of the fisheries expedition to Hudson Bay as published in the last issue of the "Fisherman," says: "The beluga or white whale was seen in great abundance in the estuaries of the Nelson and Hayes rivers and also in those of all the rivers and creeks of any size in the vicinity." Obviously the uninterrupted multiplication of this fish in these northern waters for the past fifteen years has enhanced the probability of establishing a great industry there.

In the prosecution of the seal fishery a total of 233,719 were secured having a net weight of 5,346 tons and a net value of $200,000. Seventy steamers engaged in this industry, carrying 3,959 men.

The report on the Caplin fishery reads in part: "Considering the abundance of this little fish and the ease with which they can be procured while in on the coast it seems regrettable that some means has not been evolved to put them up in a preserved state and placed on the market as a delicious article of food." This season a means has been discovered by Mr. Henry Verran of Placentia, Nfld., of placing the article on the market. We understand that a quantity of Mr. Verron's product has been shipped away. If the article finds ready acceptance amongst the consumers the establishment of a gigantic canned Caplin industry will be only a matter of a very few years. A sample of the product was submitted to the Minister of Marine and Fisheries, and received his endorsement as follows:— "This is to certify that I have tasted the Caplin canned by Mr. Harry Verron, which were canned over eleven months. I found that they were in excellent condition, and their flavor was exceptionally good." This spring, Captain Piercy, a banking captain from Gloucester, came to the coast to buy turbot. This fish is very plentiful around the Newfoundland coast, and exceptionally so in Trinity Bay. The fish heretofore was never caught in Newfoundland for commercial purposes. A few fishermen decided to engage in the industry and to date have secured more than 10,000 barrels, which are sold for $5.50 per barrel. The "Mail" says: "If Capt. Piercy secures a properly cured article he will find an unlimited market for this fish as it is the best of all fishes taken in Newfoundland."

The formation of a company to engage in Newfoundland in new phases of our fisheries has, it is learnt, been just consummated. The proposed industry will be financed on American capital. This company intends to erect a large plant in St. John's as well as to maintain a fleet of motor boats. The largest part of the industry will be in putting up cod fish known as shredded codfish, i.e., codfish deprived of the bone.

If this industry is once established on the scale anticipated, it will mean much for the Newfoundland fisheries. We understand the work of constructing the plant is to begin shortly.

The factories known as the Fleet property and located at Middle Arm Bay of Islands, were taken over last Spring by the Zellermeyer Scotch Cure Co., Ltd. The plant is being improved considerably, and will be in readiness for the herring fishery in the fall.

Take it altogether, last year's returns show very fair success in most branches of our fisheries. For the future much remains to be accomplished. As yet the bare fringe in the development of the Newfoundland fisheries has been touched. There are in these waters abundance of mackerel, turbot, blue fish, Caplin and flat fishes that have not yet been turned into a com-

mercial industry. This no doubt is largely due to our lack of initiative in the past in securing markets for these products. The other fishing industries paid well and we were content to let "Well enough" alone. Now, however, since it has come to be popularly appreciated, the desirability and importance and above all the economy of utilizing fish for food, new industries are bound to soon spring up.

If it were appreciated the hazards and risks that are taken every day to secure this diet we would realize that it is bought dearly and sold cheap. Wresting the products from the oceans calls daily for trials of courage and immeinent danger. Acts of heroism, and sacrifice with daily loss of life is the price at which this commodity is secured. Fish for food; yes! indeed, we on land get it cheaply.

Quebec and Ontario

THE FISHING INDUSTRY AT PORT STANLEY.

By NETTIE BERRY.

In a previous account of Port Stanley and its extensive fishing industry, I promised to describe as clearly as possible the process used.

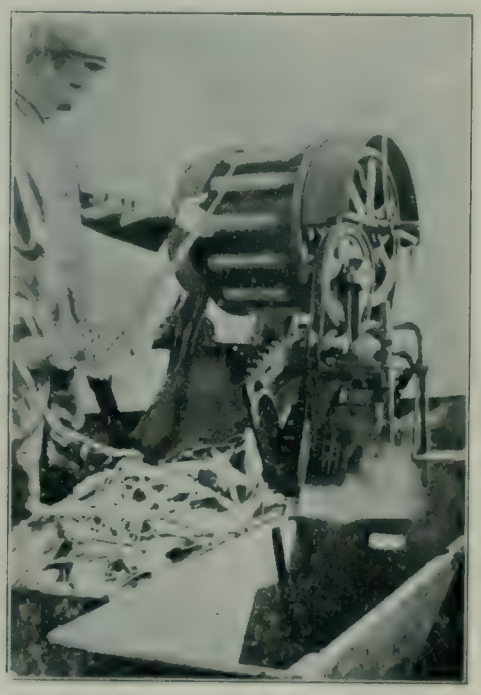
It is only within the last ten years that any improved methods have been used. Before that time nets

Setting Gill Nets from a Fish Tug.

were set and lifted by hand; consequently the number of men needed were more than at present, and less fish were handled. At the present time each tug carries an average of eight men and all nets are lifted by a net lifting machine known as The Atwood Net Lifter, which consists of a engine, drum and roller—lifter being driven by a rotary engine known as a Dake engine made in Grand Haven, Michigan, and run by steam supplied by the boiler of the boat, and operated and controlled in the pilot house—which is very handy and dry during cold and rough weather.

The nets used are one fathom in width and 35 fathoms long. From one hundred to two hundred nets are usually fished and set in one string or gang. They are fastened or anchored by a buoy with a stone weighing from ten to fifteen pounds, and to keep them in an upright position, there is what the fishermen call a brail which is a bamboo pole the width of the nets fastened with a bridle which leads to the stone and from the stone to the buoy.

The tug steams to her buoy guided by a course. The buoys are distinguished by each boat having a different flag attached to it or their own personal flag, with either name of boat printed on it or the number of the boat. When buoys are picked up, the lifted is started in operation, the jaws around the outside of the drum opens and closes as it revolves and grips the twine, and carries it around half way dropping it into what is known as trays or boxes. In light fishing the fish are husked out of the nets as they pass over the lifter, but in heavy fishing they are just dropped—fish nets and all—in boxes and a double crew are carried at the season—some husking and others lifting. In this way



Gill Net Lifting Machine.

a great many fish can be handled in a short time. It is a common thing for one tug to handle from fifteen to twenty tons in one day. Of course, these heavy runs ony last for a short time in the fall season, usually in November, and first part of December.

The fishermen of Port Stanley sell their fish through the Producers' Fish Company—an organization which was formed by the fishermen themselves some two years

ago, and the stock of which is held by fishermen. The company has two offices—the head office in Port Stanley for the Canadian trade and a branch office in Buffalo, N.Y., to take care of the American business.

All sales over fifty pounds must go through either of these offices. There being a disagreement between the Pound Net fishermen and Gill Net fishermen, the Dominion Government has placed a ten-mile limit on the gill net fishermen, which has been a great disadvantage to them, giving them such long runs.

Owing to this new ten-mile limit law the fishermen are going into Pound Net fishing more extensive, which before this time has always been a secondary way of trapping or catching the fish.

* * *

Port Arthur Lake Superior Herring Fisheries, are developing more and more in importance. The fish arrive about November and the run is over about the 12th of December. Last Fall there were twelve steam tugs carrying crews of from 12 to 24 men, besides other smaller craft engaged in the work of catching the fish.

The Canadian market takes the frontal cut, and the United States want them mostly flat.

Engaged extensively in the herring fishery out of Port Arthur is the J. Bowman Fish Company—a firm which also handle large quantities of fresh, frozen, salted and cured varieties of sea and lake fish. Mr. John Bowman is the founder of the firm, and like most men in the fish business, began in a small way. For many years he was engaged in the fishing industry at Rossport, Ont., later moving to Porth Arthur, where his business prospered with the growth of the town. Mr. Bowman has been an Alderman of Port Arthur on several occasions and was for a time acting-mayor of the city. He is also a Director of the Canadian Fisheries Association.

Also operating out of Port Arthur is the Dominion Fish Company—a subsidiary of the Booth Fisheries, Ltd., of Chicago. This concern have extensive fishing stations at various centres upon the Great Lakes and do a very large business in fish of all varieties. Mr. W. H. Climie is the Manager at Port Arthur. The Head Office of the company is at Wiarton, Ont.

Herring Tugs and Herrings, Port Arthur, Ont., Pickled herrings on scow.

If the weather gets very cold and ice forms in the harbors, it shortens up the season, and creates a lot of hardship for the men, and is also hard on the hulls of the boats engaged. Last Fall there were about 500 men actively employed in catching, dressing, salting and freezing the herring. The catch amounted to about fifteen hundred tons.

When it is realized that these are all handled in about four weeks time, it can be understood how everything is done in a rush. The salted herring is mostly put up as a slimed fish, and shipped in carload lots to cities both in Canada and the United States. They are also spread out on docks and platforms where they are allowed to freeze individually, and are then sacked up in 100 lb. lots and loaded into cars for the market. The nets are gill nets and are lifted every day with steam lifters.

The Port Dover Fish Company operate out of Port Dover, Ont., and ship various varieties of Lake Erie fish, caught by gill net tugs and by pound nets. The company have a number of steam tugs engaged in fishing for them and have their own wharves and warehouses located in close proximity to the G.T.R. tracks. Captain W. H. Ainslie and Mr. T. Colby direct the business of the concern.

* * *

Killarney, Ont., situated in a picturesque section of the Georgian Bay, is the center of an extensive fishing industry. The cold, deep waters of the Georgian Bay are prolific in edible fish and large quantities of whitefish, trout, pickerel and pike are shipped from Killarney to Owen Sound. During the season of navigation, the steamers of the Northern Navigation Company and the Dominion Fish Company call regularly,

and fish is shipped by them to dealers in Canada and the United States. Several gill net tugs operate in the vicinity and pound nets are staked in the adjacent waters. Mr. T. H. Jackman is engaged in the fish trade out of Killarney and has a large general store dealing in fishermen's supplies.

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Out of Port Stanley, Ont., a large gill net and pound net fishery is conducted—a description of which is published elsewhere in this issue. The Producer's Fish Company, Ltd., is located there, and is an organization composed of fishermen who handle their own products. Mr. Chas. Finley is the manager.

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About seventeen years ago, Mr. Frederick Thomas James entered the fish business with a small store in Toronto. The first year in business, he did not make a cent and had to compete against powerful competitors who endeavored to freeze him out. It is not an easy task to freeze out a man who started life as a sailor before the mast, and who knocked off seafaring when an iceberg knocked the bows off his ship. Mr. James was a boy at the time, but was hardy enough to live for a week in an open boat without food or water while seven of his shipmates died from cold and starvation and two others had to have their frostbitten feet amputated when rescued later. Therefore, it will be readily understood that "freezing out" Mr. James would be no easy task.

Determination, combined with courtesy and good business methods, brought success and the F. T. James Company, Ltd., was eventually organized with a fine modern cold storage and wholesale fish and oyster warehouse on Church Street, Toronto. To-day, the firm do one of the largest fish and oyster businesses in Canada and have branches and supply stations upon all of the Great Lakes, while the company's trade mark "Beacon Brand" is known to the trade and the consumer all over the Dominion. Mr. James is a director of the Canadian Fisheries Association and one of the men responsible for the promotion of the organization.

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Messrs. White & Company, Ltd., the large wholesale fruit and provision firm of Toronto, have an extensive fish department in connection with their business. Under the able management of Mr. W. H. Despard, this part of the firm's activities has developed to a considerable extent, and is increasing yearly. The company possess cold storage and every facility for handling fish.

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Mr. T. W. C. Binns, who is in charge of the Fish Department of the Matthews-Blackwell Company, Ltd., at Ottawa, Ont., has seen his Department grow from a mere side line to one of indispensible importance. Within the last year, in spite of the war, the retail fish trade of the company has developed wonderfully. Careful selection, clean handling, good window dressing and advertising has been the secret of Mr. Binns' success.

Sacking Frozen Herring, Port Arthur, Ont.

A modern and progressive wholesale fish house is that of Leonard Bros., located near the Customs' House on Youville Square, Montreal. Though not designated on the firm's signboard, much of the success of the company is due to the work of the managing partner, Mr. D. J. Byrne, who with Mr. Walter Leonard, of St. John, N.B., constitute the firm.

Mr. Byrne has grown up with the fish trade in Montreal and is an example of the supposedly mythical youth who enters the firm as an office boy and rises to be partner and manager. Mr. Byrne has gone through the mill in the fish business, and has come out "well grounded"—so well grounded that he was elected President of the Canadian Fisheries Association with the feeling that the destinies of that most important organization were in able hands.

It is an exceedingly difficult thing to organize Asso-

ciations—especially those that are widely scattered, and have so many varied interests, but it speaks much for President Byrne's popularity with the trade that the Canadian Fisheries Association has taken hold and practically every large fish firm in Canada are members of it and matters of real importance are being entrusted to its officials. Mr. Byrne is a good speaker, and while an optimist, leavens his optimism with just enough reserve to be free from the "boost" disease. Any statement he makes regarding the fish business may be taken as a level-headed, reliable opinion.

Up till recently, Mr. Byrne used to be a lover of good horses, and drove a smart little trotter, but, alas! the modernism of the age has claimed a victim, and we see him driving around in a large Lozier car—which may be a sign of progress or prosperity — probably both.

The firm, with which he is connected, do a large business in Montreal and in Eastern Canada. The Montreal plant is equipped with ample cold storage space for storing and freezing fish; facilities for shipping are of the best, and supplies are brought in from their own fishing fleets and plants at St. John, N.B., Grand River and Gaspe, Que.

Leonard Bros., Warehouse, Montreal.

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Located in a historic section of Old Montreal, and close to the famed Church of Notre Dame de Bonsecours and the market, is the firm of D. Hatton Company, Ltd., wholesale fish merchants. The company is an old established one, having been founded in 1874, and though the original D. Hatton has passed away, the present concern is managed by Messrs. Paulhus and Hawkins.

Mr. J. A. Paulhus, the managing partner, would have made a success in a literary vocation just as he has made a success in the fish business. He is temperamentally inclined to the world of letters, and has the gift of being able to write with equal facility in English or French. At Sorel College, where he was educated, he carried off the Governor-General's Medal for highest merit in the Colleges of the Province of Quebec. Mr. Paulhus has been 25 years in the fish business—long enough to have stifled all romance and literary tastes—but it has failed to subdue that side of his nature, and he has made many contributions to literature. He is a life member of the Club Canadien, and a member of the Reform Club, Canadian Club, and the Chambre of Commerce—last, but by no means least, he is a Director of the Canadian Fisheries Association and Chairman of the Editorial and Publicity Committee.

Mr. J. E. Hawkins, his associate, has made distinctive sacrifices for the Empire in the present crisis. Three of his four sons are with the Canadian Expeditionary Forces at the front, and the fourth son has recently enlisted. Mr. Hawkins has been many years in the fish trade in Montreal, and with Mr. Paulhus, both have built up a thriving business in the distribution of fish and fish products.

* * *

The "Retail Grocer" pays the following tribute to Mr. A. H. Brittain, of Montreal:—Alfred Herbert Brittain, managing director of the Maritime Fish Corporation, Ltd., Director of the Canadian Fisheries Association, is one of the younger generation of business men in Canada who has a vision. His vision is the development of the fishing industry of Canada's Atlantic coast. He not only knows what a great many other Canadians know, namely, that this country possesses an unlimited supply of fish, but he is persuaded that the consumption of fish in Canada can be very greatly increased. And to the bringing of this about is a task to which he has set his face with a zeal akin to that of an evangelist. He formed an acquaintance with the grocery trade of Canada when, in 1894, he joined the travelling staff of Walter Grose, Montreal. Five years later he organized the firm of A. H. Brittain & Co., whose particular purpose was the development of the fish trade. Two years later he promoted the formation of the concern of which he is now managing director, namely, the Maritime Fish Corporation, Ltd., known throughout Canada for the energy it displays in developing the fisheries of the Atlantic seaboard. Mr. Brittain is also vice-president of the Schultz Manufacturing Company, Ltd., Hamilton, and a director of the St. Marys Wood Specialty Company, Ltd., St. Marys, Ont. He takes a keen interest in the affairs of the Canadian Manufacturers' Association, and in those of the Montreal General Hospital. He is a life governor of the latter institution.

His recreations are yachting and riding, either one of which tends to keep a young man of less than 40 years from growing old, physically.

Mr. Brittain is "as genial as you make them," which explains his general popularity.

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Mr. W. R. Spooner, who represents the National Fish Company, Halifax, and several other producers of fish in Montreal, is a native of Kingston, Ont., and entered the fish business in Halifax many years ago. For a number of years, he was sales manager for the North Atlantic Fisheries Company, Ltd. Mr. Spooner is located at 47 William Street, Montreal, and has cold storage for handling fish on the premises. He was one of the men responsible for the organization of the Canadian Fisheries Association, and is a Director and a member of the Transportation Committee. Mr. Spooner is well known to the fish trade in Canada, and is regarded as a very capable and bright business man with a rapidly increasing connection, built up through courtesy, and strict attention to the quality of the fish he handles.

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Montreal has a number of first class retail fish stores and most of them take a real and active interest in the work of stimulating an increased consumption of fish

among their customers. Advertising, good window dressing, and careful selection of the various kinds of fish they handle are beginning to show results, and all of the dealers report increased sales over previous years. Among the dealers in Montreal may be mentioned the firms of Henry Gatehouse, Stanfords, Ltd., J. T. O'Connor, P. Pegnem, H. A. Letourneau, Louis Laurin, Joseph Turgeon, Amedee Charbonneau, and Birse & Stanley. A sure sign of the progressiveness of the Montreal dealers may be taken from the fact they are nearly all members of the Canadian Fisheries Association.

Dominion Government Building, Canadian National Exhibition, Toronto, where the Fisheries Exhibit is located.

The Prairie Provinces

One of the most enterprising and progressive wholesale fish concerns doing business in the Middle West to-day is the W. J. Guest Fish Company, Winnipeg, of which Mr. William John Guest is President and General Manager, and Mr. William Douglas is Secretary, and looks after the financial end of the business.

The Company's premises are located on the banks of the Red River and not far from Winnipeg's Main Street. Of modern construction and with a large cold storage equipped with the Linde-Canadian refrigeration system, the Guest plant is one of the largest fish warehouses in the West. Smokehouses are included in the premises and the famous and delectable specialty of the firm—Kippered Goldeyes—are put up there. Epicures remote from Winnipeg have yet another delight in store for them if they have not tasted this succulent Lake Winnipeg fish.

Mr. Guest is a self-made man and started life as a fisherman on Lake Huron. Later he went West and built up the present establishment in Winnipeg from very humble beginnings—a horse and wagon first, and then a very small store on Main Street. After many vicissitudes, but going ahead all the time, the present company was formed by Mr. Guest and Mr. Douglas in 1905. The firm handle all kinds of fish—sea and lake—and have railroad tracks leading to their shipping rooms.

Mr. William Douglas is a Director of the Canadian Fisheries Association and a member of the Transportation Committee—an office in which he shines, as few men have studied the complexities of railroad tariffs as much as he. In the formation of the Association, Mr. Douglas was one of the most whole-hearted supporters of the movement.

With two such men directing its affairs, the fortunes of the W. J. Gu est Fish Company are destined to advance and keep pace with the progress of the Prairie City.

* * *

"If it swims—we sell it!" is the slogan of the House of Green—a relic, no doubt, of the days when the Clan Green, awa' back in Auld Scotia lang syne, advanced on their enemies with claymores and flying tartans. Alas! times have changed, and the present Chief of the Clan has discarded the sword of his Highland forefathers for a more legitimate occupation—that of advancing the good qualities of fish upon the people of the West and incidentally the consumption.

Few persons in the Trade are better known than Mr. Hugh A. Green of the Aberdeen Fish Market, Saskatoon, and Prince Albert, Sask., and the Camp Fish Supply Company of Sewell Camp, Man. "Hughie Green," as he is popularly known, is the Apostle of Fish in the West, with a commission from Old Father Neptune himself to get all the fish out of the sea to make room for submarines.

Friend Hughie has special claims to distinction for his efforts with the Military Authorities of Canada in getting fish placed upon the soldier's menu. His famous pilgrimage to Ottawa, during which he expounded on the good qualities of fish to every official from General Hughes down to the War Office orderly, is bearing fruit, and Mr. Green's latest establishment is in Sewell Concentration Camp where he supplies all kinds of sea and lake fish to the "sodger laddies."

When six feet two inches of optimistic aggressiveness combined with Scotch pertinacity gets busy on the merits of a fish diet there is no escape—it's a case of "Eat Fish or perish!" Hughie gets his audience to eat fish and then attends to business by pointing out "If it swims—we sell it!"

The fisheries of the inland lakes and rivers of the Prairie Provinces are very considerable. There are a vast number of these lakes scattered throughout the west and upon almost all of them are located fishing camps, where in the season, a large number of fishermen operate their nets and bring to shore huge quantities of fish. Two of the largest concerns operating this fishery are the Armstrong Trading Company, Ltd., of Portage la Prairie, Man., and the Northern Fish Co., of Selkirk, Man.

The Hon. Hugh Armstrong is the President and Manager of the company, which bears his name, and under his direction, the concern has expanded to a miniature Hudson's Bay Company with trading posts all over the west. Mr. J. W. Simpson is the manager of the Northern Fish Company and is one of the best known fish men in the Prairie Provinces. He is a Director of the Canadian Fisheries Association. The main fishery of the company is located on Lake Winnipeg at Selkirk.

Bailing in Lake Fish from a Pound Net.

British Columbia

(Special Correspondence.)

This is too large a field to cover entirely at one go, so I can only here confine myself to a rough draft of the industry as operated in and from Vancouver. This will represent more or less the Province, but cannot attempt to show the vast extent of the whole of the fisheries of this Province. It is also impossible to cover Prince Rupert as that ambitious centre is a long way from Vancouver, and has interests more local than otherwise. Outside of Prince Rupert and a few canneries that are operated from Victoria and the whaling industry, the rest of the fisheries of British Columbia are operated from Vancouver.

I do not propose to show by statistics how much larger in volume the industry is in British Columbia than in other parts of Canada. The official returns show this. But very few people in Eastern Canada realize that the fishing industry of British Columbia is in its very early infancy, and has sources untouched of what are to-day profitable branches in the Maritime Provinces. Our Eastern Canadian friends are mostly under the impression that we have nothing worth while, other than salmon and halibut. Besides these fish we have herring in all sizes, cod of all species and of some species unknown to the Atlantic waters, soles, plaice, flounders, smelts, oolichans (caplin tribe), skate, bass, perch, shad, sturgeon, shrimps,prawns, crabs, clams, oysters and many other species. Most of these are hardly touched as the demand has been upto now so limited. But whenever there is a ready market for fish, the waters of British Columbia can supply an unlimited demand.

We all have our kicks to make, for we would not be worthy of the calling we follow if we did not have something to growl at. We on this coast feel that the fishing regulations are not properly adjusted to suit the requirements of the industry and of the peculiarities special to the Pacific. Perhaps if we kick long enough and bring the matters that worry us to the attention of the powers that be, we will be given what we are after or at least as much as is good for us. It will be seen in time that regulations made for the Atlantic cannot be enforced on the Pacific, and vice versa.

Our canned salmon industry is a branch of the fisheries entirely to itself at present. But there seems to be a growing impression that the future will see the canning and fresh fish branches indispensible to each other. It is also considered that a cannery with a cold storage attached or close at hand will be essential in the future. To-day, for instance, there are several such plants on the coast. It stands to reason that

there should be some place to send the surplus of salmon that often offers, where it can be taken care of later. A cannery will in this way be able to operate more regularly and will consequently have a lower cost of operation.

One noticed in a recent Newfoundland paper the fact that a merchant of that country had an enquiry for canned salmon that ran into the millions of cases. such an enquiry would cause quite a flutter anywhere but on the Pacific Coast. The largest pack British Columbia has ever put up was that of 1913, when the total was 1,353,901 cases (each case of 1-lb. tins contains 4 doz.) This is quite a lot of salmon, but only about one-fifth of the total of the whole pack on the Pacific. With the cannery of the future equipped with a cold storage plant, the packs will be much larger. The demand will adjust itself to all that can be put up.

The following will tend to show the vast amount of capital invested in the business in British Columbia:—

Packers of Canned Salmon in British Columbia.

B. C. Packers' Association—Fraser River, Skeena River, Naas River, River's Inlet and outlying.
Anglo B. C. Packing Co., Ltd.—Fraser River, Skeena River, Naas River, River's Inlet and outlying.
J. T. Todd & Sons—Fraser River, Skeena River, River's Inlet and outlying.
St. Mungo Canning Co., Ltd.—Fraser River.
Glen Rose Canning Co., Ltd.—Fraser River.
Great West Canning Co., Ltd.—Fraser River.
M. Desbrisay & Co.—Fraser River and Naas River.
Scot.-Can. Canning Co., Ltd.—Fraser River.
Jervis Inlet Canning Co., Ltd.—Fraser River.
Goss-Millard Canning Co., Ltd.—Fraser River and outlying.
Steveston Canning Co., Ltd.—Fraser River.
Defiance Packing Co., Ltd.—Fraser River.
Northern Canning Co., Ltd.—Fraser River.
Kildala Packing Co,, Ltd.—Skeena River, River's Inlet and outlying.
B. C. Canning Co., Ltd.—Skeena River and Naas River.
Skeena River Commercial Co., Ltd.—Skeena River.
Cassiar Packing Co., Ltd.—Skeena River.
Wallace Fisheries, Ltd.—Skeena River, River's Inlet and outlying.
Can. Fish & Cold Storage Co., Ltd.—Skeena River.
Kincolith Packing Co., Ltd.—Naas River.
Clayoquot Packing Co., Ltd.—Outlying.
Quathiaski Canning Co., Ltd.—Outlying.
John Wallace.—Outlying.
Draney Fisheries, Ltd.—Outlying.
Gilford Fish Co., Ltd.—Outlying.
Goletas Fish Co., Ltd.—Outlying.
Nanaimo Fish Co., Ltd.—Outlying.

A cannery is in the position of a father of a large family. It has to finance the fishermen, supply them with boats, nets, and other gear and take its chances of getting its money back. The outlay in advances and gear alone by the canneries of the Pacific are enormous. So large are they in fact that it takes a man who must be pretty sure of his ground before he ventures into the business. The Province of British Columbia owes more to the old time cannerymen than people have any idea of. I know such conditions prevail all over Canada, but not anywhere do they prevail as largely as out here.

Prince Rupert---The Port of Progress

By F. S. WRIGHT, Publicity Commissioner of the Board of Trade, Prince Rupert, B.C.

Although Prince Rupert's official nomenclature is Prince Rupert, Northern British Columbia, there is nothing North about the city, except the initials, N. B. C. North spells cold, frost, ice and snows. Prince Rupert's average mean temperature in 1914 was 46.6 Her snowfall was 1.29 inches. Her lowest temperature was 8.0 and her highest was 77 degrees.

The City stands within 30 miles of the absolute dead centre of British Columbia. It is linked up with Eastern Canada, the Prairies and the States by the newest, shortest, and easiest graded transcontinental railway on the American Continent. This rail passes through the centre of British Columbia, the centre of Alberta and Saskatchewan on to the city of Winnipeg. Prince Rupert is also the connecting link—where steel meets keel—on the shortest route between the Atlantic Coast and the Orient.

In the year 1907 the place where Prince Rupert now stands was a wilderness of timber covered land. There was no connecting steel between her and civilization, and the only way in or out was by steamer.

To-day—1915, a short eight years—the steel is laid, regular trains are running fully equipped, and each leave Prince Rupert with its share of the harvest of the seas for the markets of the East and Europe. A A town has sprung into being. A city of 6,000 souls with churches, schools, banks, public buildings, telephone, light, power, parks, graded streets, sewer system, hotels, and other facilities.

Eight years has witnessed the completion of a dry dock of a larger capacity than any other like plant on the Pacific Coast. Fully equipped for all kinds of ship building and repair work, with up-to-date machinery shops, foundries, a 60-ton crane and other modern facilities, not building, but built and ready for business. Already the first steamer to be repaired at the dock is expected daily. Prince Rupert also possesses a cold storage plant of 7,000 tons capacity; fish curing plants, docks, wharves, ice-making plants, and other requisites incidental to the fish trade.

A fuel oil depot consisting of five storage tanks, docks, warehouses, pumping stations, etc., where, weekly, tank steamers of large capacity are landing cargoes of oil fuel necessary to the fish trade and the railway.

Ore bunkers, shingle mills, wholesale warehouses, etc. All this has been commenced, completed and brought into operation in a short eight years, and I put it up to the reader. Does it not spell progress?

In April, 1914, the last rail was laid on the trans continental, in September, 1914, a regular through passenger and freight service to Eastern points was established. In July, 1914, the voice of industry, and the hammer of the builder was heard on every side.

Strangers were flocking into the town and houses were at a premium, when like a bolt from the blue, war was declared, money scared, retired to its shell, and development was stayed. Only work absolutely necessary for completion was continued and building permits fell from $30,000 for July to $4,000 in August. That is what happened in August last, in Prince Rupert, but even the calamity of war did not stay the hand of progress.

While real estate was booming to the skies, while buildings were being erected as quickly as the carpenters could swing their hammers, and all the development work necessary for laying the foundation upon which to build up a city was in progress, Prince Rupert was also paying attention to the natural resources at her door. In the seas to the front of her, in the mines, in the hills, and in the valleys of the interior and adjacent islands. Hence when the crash of arms was heard, and war was the topic of the world, Prince Rupert still found that notwithstanding cessation of development work, of rail building, and loss of outside capital caused by the tightening of purse strings in London and elsewhere, she still had more than enough actual resources to fall back upon, and to-day, she is maintaining a steady, although a slow, growth on the way to prosperity.

War, even with all its evils, brought some recompense. Copper, of which Northern British Columbia has more than her share, started climbing. It was needed with other minerals for war munitions, and the Prospects were and are being developed. Ore bunkers were built at sea board. The Granby smelter increased its output. Other mines started shipping, and created local markets for the fishing industry. Lumber, previously a drug on the market, suddenly came in for enquiry, the increase in fishing receipts created an increased demand for box lumber. Clear spruce was eagerly sought after, and other lines of lumber received a boost. Mills previously lying idle, prepared to get to work again and turn their saws.

The Fishing Industry.

Fishing—the largest and best of Prince Rupert's young industries. The rail was through to Eastern markets. The cold storage plant was built and operating, the ice-making plants were ready, fuel oil and supplies available and all other incidentals necessary to the fish trade, including market organization were in existence. Meat took a sudden jump, placing it almost out of reach of the poor man, and fish as a food item came into its own. With markets increasing daily and Prince Rupert in a position to take care of her part of the burden of supplying this demand, the outlook for the fishing future of Prince Rupert is bright.

In August, 1914, Prince Rupert's shipments of halibut to Eastern markets were next to nothing. To-day the 31st July, 1915, returns for the month show that over two million pounds of halibut alone was landed at the Port of Prince Rupert, nearly all of which was shipped over the G.T.P. to the great centres of the East. To-day, in almost every large city in the East, when people eat halibut, the probability is that the fish they are eating was caught near Prince Rupert, landed at Prince Rupert and shipped over the G. T. P. Ry. to the consumer.

Canadian Fish and Cold Storage Company's Plant, Prince Rupert, B. C.

Fishermen's Earnings.

During the month of June, 1915, 76 landings from fishing boats were made at the Port of Prince Rupert. Each of these boats carry a crew of three to a dozen men. These men are generally paid on the share basis of one-fifth of the catch, and when fishing is good, make good money, probably an average of $100 per month. A trip lasts about three weeks.

Prince Rupert's catch of fresh fish for the first six months of 1915 was around $500,000, which makes a pay-roll of about $100,000. To the wage worker this would no doubt be high wages, but it must be borne in mind that fishing especially off the Pacific Coast requires long training and experience. Generally

speaking publicity as to good wages to be made in any line of effort has the effect of drawing a surplus of labor to the field advertised. In an industry such as fishing there cannot be too many actual fishermen, but there can be too many coming to engage in that vocation without experience.

Prince Rupert's fishing industry offers opportunity to the experienced man, especially if he owns his own equipment, and is married. To this man, Prince Rupert offers cheap rentals, low average cost of living, healthy and temperate climate (last year's health statistics show that the number of infectious cases in a population of approximately 6,000 was five), good schools, amusements, churches, soil capable of growing all kinds of vegetables and small fruits, and without a par the best location for a home on West or East Coast for the fisherman.

The Buying Trade.

Present buyers on a large scale are few, but have been able to take care of all the fish landed hitherto. The Canadian Fish and Cold Storage Co., and the Atlin Fisheries Co. are the two largest. In addition are the Rorvik Fish Co., the G. W. Nickerson Co., buying and shipping halibut and salmon, and the Crown Fish Co. shipping crabs put up in various forms. There are also buying agents for one or more outside firms located at the port.

The prices paid for fish landed are governed by ruling prices on the coast and vary from 4 to 8c. For the purpose of average a ruling price of 5c per lb. for all kinds of fish is struck.

The small amount bought for local consumption generally brings higher prices, due to the fact that fish are of the best quality, and the remainder is exported to eastern markets over the G.T.P. Ry.

City's Encouragement of Fishing Industry.

The Citizens of Prince Rupert early recognized the value of her fishing industry, and steps have been taken to do all possible to foster the trade. A by-law will shortly be submitted to the Citizens of Prince Rupert to cover the expenditure of $30,000 on a municipal fish wharf at Seal Cove. The plan of the proposed wharf has been received favorably by all interested, and this work will be started in the near future. In addition, the city has under consideration the guaranteeing of the interest on the cost of building a cold storage plant which would be city controlled as to rates charged, etc., and leased for a term of years at a rental sufficient to cover interest charges to a large concern. The installation of a plant of this description, it is said would be of the utmost value in still further attracting the independent American fisherman to the port. It is expected that the building of this plant would furnish competitive buyers to the fishermen, who would thus be in a position to command better prices for their products. Generally speaking, there has been no complaint as to treatment in the matter of buying up to the present time amongst the fishermen, but a certain amount of hesitation is shewn, especially amongst independent fishermen in the South, who while perfectly willing and recognizing the advantages of shipping through Prince Rupert, hesitate to do so permanently until there is a larger and more defined independent market.

The Fishing Fleet.

The fishing fleet is made up of boats, all equipped with auxiliary engines, and from 10,000 lbs. to 120,000 lbs. capacity. The Canadian Fish Cold Storage Co.'s fleet consists of eight vessels aggregating a total crew of about 150 men. In addition there are about 40 independent boats with crews averaging four men. About 200 men are working on small sailing boats.

An average of 26 vessels of American register are using the port for landing fish in bond. These vessels have the privilege of landing and selling their fish to local buyers in bond, and can purchase their supplies and bait in return. This is especially advantageous, when catches are light, as it saves American boats the further trip of over 500 miles and return to Seattle. The treatment these boats have received from both buyers, supply dealers and the Customs is as fair as possible, and successful effort is being made to encourage the American boat to land its fish here, and make Prince Rupert their home port.

Fishing Gear.

Several firms deal in this most important branch of the fish industry, one exclusively, namely Messrs. E. Lipsett and Co., the old established Vancouver firm, who have located in Prince Rupert. In addition, others

Halibut fishing steamer, Canadian Fish and Cold Storage Company, Prince Rupert.

deal in gear and supplies to a greater or smaller extent.

Supplies.

The largest dealer in supplies to the local fishing trade is the Canadian Fish and Cold Storage Co., who run a store in connection with their plant and supply everything needed by the fishermen.

They manufacture ice, furnish cold storage, bait and groceries of all descriptions at ruling market prices on the Pacific Coast.

Other stores also supply the fishermen to a certain extent, but owing to the fact that the larger concern is a buyer of fish in addition it consequently does the larger trade in stores. Distillate oil is supplied in bulk ed a depot of five large storage tanks with wharfage or drums by the Imperial Oil Co., who have establish- and other facilities for quick and easy loading and discharging. Prices are based on an equal basis as at other Pacific Coast points.

Contrary to the method used on the Atlantic Coast where sail boats are still used extensively in the fish-

ing industry, auxiliary power is universally used. The navigation of intricate inland waters making the use of additional motive power imperative.

Types of Fish Landed.

The chief trade is done in halibut and salmon in the fresh state. This is exclusive of the large salmon canning trade. Some cod and other mixed fish is also landed. Herring are caught in large quantities, and are used for both bait and cured for export. There is also quantities of shell fish landed, principally crabs.

The Fish Curing Trade.

The smoking and curing of fish is carried on to a small extent, but is at the present time in a more or less experimental stage. Good results have been obtained, and a recent shipment of 40,000 lbs. of cured herring was sent to the New York market in March last.

The Box Trade.

The handling of fish means a demand for boxes and box lumber. While a certain supply is drawn from the local lumber mills, the greater part both for halibut and the canning trade is obtained from outside points. The local supply is small, due to the fact that it is a subsidiary line only, of a general lumber business. Box lumber is picked lumber and the quantity obtained in the general run of logs through the mill is in proportion to the amount of lumber handled.

The mills in the district are only of small capacity, hence they are unable to keep the local demand for box lumber fully supplied.

There are no firms exclusively engaged in the production of box lumber, although raw material is at hand in abundance, but the detriment has hitherto been due to the fact that the disposal of the culled lumber has been difficult. The increased activity in the lumber market should obviate this difficulty in the near future.

Ship and Boat Repairs.

The G.T.P. Dry Dock Co., have completed the dry dock which has been under construction for over two years, and are now ready for business. They make a specialty of repairs for the fish trade, and also build small coasters for the general trade, besides undertaking general repair work.

The dry dock is the most up-to-date on the Pacific Coast. It is virtually three docks in one. It can handle a ship having 20,000 tons displacement with a length of 600 feet and drawing 50 ft. of water. Built in three sections, it can be disconnected and handle vessels of smaller capacity economically. The smaller units will lift 5,000 tons, length 165 feet. The larger unit 10,000 tons with length of 270 feet. The dock is fully equipped with machine, repair shops and cranes (one of 60-ton capacity), and will shortly be in a positin to supply fishing boats and other vessels with all mechanical supplies needed. The total cost of this work which was subsidized by the Dominion Government was around $2,700,000.

In addition, several other firms are engaged in repair work, especially on engines and motors, among them being the Rupert Marine Iron Works, The Akerburg Thomson Co., The Imperial Machine Shops and the Leuty Machine shop. All these firms are established on a solid basis and do a considerable business.

The Canning Trade.

Prince Rupert is the natural centre of an enormous canning trade, which puts up salmon in canned form for export. This is an old established, large and thriving industry. Its pack for 1914 was 441,574 cases valued at $2,207,870. The capital invested in boats, gear, wharves, etc., aggregates four and a half million dollars. During the season an average of nearly 4,000 men are employed. A certain proportion of this trade passes through Prince Rupert. This industry and settled in well defined channels before Prince Rupert was established, hence her trade as far as this industry is concerned is not a large one, but owing to her exceptional position, she has begun to cut into it, in ever increasing quantity.

The chief benefit derived is due to the fact that 40 per cent of the help employed is Indian labor, and these people deal almost exclusively in Prince Rupert.

There are twenty canneries operating in the district, and six cold storage plants outside of Prince Rupert. These plants use large quantities of lumber, tin, and other supplies, mostly shipped from Vancouver and the South. As most of the Capital invested has come from Vancouver channels, the fact that the supplies, etc., comes from the South is only what can be expected.

The Location of Industries.

The question of sites for industries is always an important one in establishing new industries. Prince Rupert's geographical position gives her plenty of waterfront, there being some 30,000 feet of water front suitable for dockage, etc., which has already been developed to a large extent, and in addition there is still further space which will be available in the future. This water-frontage is held by the G.T.P. Ry. Co., and the Provincial Government. It can be leased on fairly reasonable terms by bona fide industries, but the holding of the same for speculation has been discouraged. The policy has been to encourage in every way possible the location of permanent and bona fide industries, and it speaks well for the future prospects of Prince Rupert that such care is being taken in the leasing of this waterfront. It is true that it has worked a certain amount of hardship on small men, but the ultimate object is a good one, and in the opinion of disinterested persons justifies the position taken. The city owns no industrial sites, but the electric light, power, water, and telephone is municipally owned, and every concession possible as to these facilities will be given bona fide industries. The city has an hydro-electric system which develops 1,800 h.p. at the present time, of which 1,000 h.p. is available for industrial purposes at the lowest rates.

The amount of undeveloped power in addition within a radius of 40 miles of Prince Rupert is 68,000 h.p. This field has been surveyed and plotted and the cost of development is from $7.95 to $17.34 per h.p. with an utmost length of transmission line from 13 to 45 miles.

Prince Rupert's position as to the markets of the Orient and Siberia towards which the eyes of the manufacturing world are turned at the present time is an excellent one. She is the centre, the meeting place of rail and ship on the shortest, easiest graded route from the Atlantic Sea Coast to the East. She has water power, raw material of all descriptions in abundance at her door. In the laying out of the town site, sites for terminal elevators, ocean docks, ore bunkers, etc., were reserved, and the future handling of transhipment of grain and other manufactures has been arranged for on a large scale.

The Long Line Method of Fishing.

This recent change in halibut fishing is worthy of mention. It has taken the place almost entirely of fishing from dory boats. In rough weather, fishing from dory boats was dangerous and detrimental to a large catch. It often happened that a boat had to return to port without putting a line or boat over the side, owing to rough weather. Since the introduction of the long line method, it is unheard of for a boat to return to port with an empty hold. In addition it had the effect of considerably reducing operating expenses, by reducing the number of men required to handle the boats. The process is a simple one, and is exactly what it is called, a long line, hooked and baited, at intervals, and about 5,000 feet long, operated by means of steam winches direct from the fishing boat. The installation of this method has greatly increased the fish catch.

Nationalities of Fishermen.

The majority of men engaged in the halibut and deep sea fishing are white. The fact that the industry is carried on all the year round furnishes a good inducement, for experienced fishermen to follow the trade regularly.

In the canneries where the season is considerably shorter only about 15 per cent of the help employed is white, the remainder being made up of Japs, Chinese, and Indians, with the latter predominating.

Wages are based in the cannery trade on the fish caught among the actual fishermen and average about $500 a season for the experienced white man; $300 for the Japanese, and the Indians from $100 up. The Chinese are employed almost exclusively in the cannery itself as well as the major part of the Indians.

At certain times of the year good catches of salmon are made by independent white fishermen off the Queen Charlotte Islands, and other places by trolling, from either small row boats or gas boats. They stay on the grounds during the fishing season and their catch is brought in to the market by carriers, who dispose of the fish at ruling prices and charge 1c per lb. freight for doing so. This industry offers good openings to men who have the knowledge requisite for the handling of small boats, and have sufficient capital to equip themselves in a small way. The outlay required is not large and the remuneration generally is good. They make on the average from $3 to $4 per diem.

In Conclusion.

The giving of these details will show the possibilities that Prince Rupert offers. Not to the speculator or the itinerant worker, but to the manufacturer, to the fishing trade in all its branches, especially the fisherman who owns his own equipment, or the man, married preferably, who is looking for a location which gives good prospects of future growth, where a living from the start is assured and where there is a chance to progress as the town progresses.

The fish in the seas, the mines and agricultural possibilities guarantee the poorest against actual want. Ability to catch the fish or till the land is about all that is required if a man is adaptable and willing to get in line and take the rough with the smooth. The climate is of such a temperate nature as to allow of work all the year round. The cost of living as far as clothing is concerned is considerably less than on more rigorous coasts, and all conditions are favorable for permanent location.

In considering Prince Rupert as a location it is important to bear in mind that while the future prospects are bright, and give the man of adaptability every reasonable chance of success, present conditions do not justify any great influx of population. There are good openings in the fishing trade for fishermen, opportunity for location of industries in connection with that trade, opportunities for profitable employment of small capital, and a fighting chance for the man willing to adapt himself and get the experience necessary to compete with other experienced men in the fishing industry. There is no room for the man looking for snaps. Conditions have been outlined as they are, and after reading this I ask all, are we not justified in calling Prince Rupert the latest Port of Progress in the Dominion?

Vancouver as a Fish Centre

In the foregoing list will be seen many well-known names throughout Canada. Some of the operators are amongst the largest companies in the Dominion and all serve to make Vancouver an important distribution point for fish. Owing to the fact that the halibut grounds are closer to Prince Rupert, a great part of the business that formerly came to Vancouver now passes through Prince Rupert. This is only to be expected, and as time goes on more and more of a certain trade will go to Prince Rupert. But this does not by any means indicate that business is passing from Vancouver. It is quite the opposite. Whilst Vancouver along with all other cities of Canada at present feels the conditions caused by the European war, still she is a metropolis and will continue to grow a still larger one. She is a natural distribution point for merchandise passing through her and that comes from and goes to the Orient with its vast possibilities and to and from the American cities of Puget Sound and other points. A large distributing centre of merchandise naturally embraces fish and fish products amongst other commodities.

Again, Vancouver is the distributing point for a great part of Western Canada, which is served by the Canadian Pacific Railway. The Terminal City has also many other railways running to all points and this means that these railways will give all the service they can to secure business. It will not be a matter of rates so much as of good and reliable service. It stands to reason that if there was only one railway serving this city, that the shippers would have to be satisfied with the service that the railway would choose to give it.

Therefore amongst her industries Vancouver will include a large part of the fishing industry of British Columbia. The head offices of the different operating companies are in Vancouver almost entirely, and will continue to be there. Where the greater distributing facilities lie, there will the operating points be also. I do not wish to convey the impression that the bulk

of the products from Northern British Columbia will be brought to Vancouver to market; but a glance at the map of the Province by anyone who understand local conditions at all will show that a great deal of the fish caught in British Columbia will of necessity be distributed from Vancouver. The city occupies such a position that her natural advantages cannot but make her an even greater distribution point than she is at present. She has a large population that will want fish, and if a tenth of the new population promised her after the war is over comes to her, she will of necessity have to be a distributing point. As an instance of what I mean I may say that Boston, Mass., is a very large distributing centre from the fact that she has the markets at her disposal. She is considerably further away from the fishing grounds than other smaller places, but she naturally attracts those having fish to sell.

Vancouver will always be a large fishing centre, and a very large distributing point. She knows perfectly well that Prince Rupert is closer to certain grounds, and does not in the least grudge any trade that Prince Rupert may have attracted by its more advantageous position for some species of fish. Vancouver is indispensable to Prince Rupert in more ways than one. Of late there has been an idea abroad that Prince Rupert is to be only fishing centre of British Columbia. We have even heard that Prince Rupert thinks that Vancouver is trying to discredit her. Nothing of the sort, for Vancouver wishes to see the Northern distributing point grow as fast and as large as she can. It will be to the advantage of Vancouver to have Prince Rupert as large a city as possible. Vancouver after hard grinding and a long up-hill struggle has attained her position, and sympathises with the Northern port, and is willing to assist her in all she can. Naturally, however, Vancouver will do everything possible to retain all the trade she can and to get more and more. There is plenty of room for both Prince Rupert and Vancouver as large fish distributing centres.

Again, a large city—and one and all will agree with me that Vancouver cannot but help being a very large city with all her natural advantages—has a large population and eats a lot of fish. The usual method is for the consumer to go to his retailer, the retailer in turn goes to his wholesaler, and the wholesalers gets his fish the cheapest and quickest way possible. Transshipment of fish means more overhead expenses and additional time wasted in delivery of the goods. With a ready market, the vessels with fish for sale, will naturally make for the markets where they will dispose of their catches in the shortest time and also where they will get the highest prices for their catches. All this will tend to keep Vancouver a distributing centre for fish. In time wholesalers in Vancouver will do as wholesalers do in other parts of America. They will have their own fleet of fishing vessels who will operate from Vancouver direct. Thus there is no reason in the world why Vancouver should not be the largest fishing centre in British Columbia. By fishing centre, I do not mean that the bulk of the fishing will be done out of Vancouver, but that the bulk of the marketing will be done there. Lunenburg, N.S., is a very large fishing centre, but she is by no means a large distributing centre.

Canadian Fishing Company's Dock, Vancouver, B.C.

Anyone in the fishing industry naturally keeps strict tab on whatever is going on in other parts of the Province. So far we have not heard of any Vancouver wholesalers expressing the opinion that they think they will do better by making Prince Rupert their headquarters. They see that as the city of Vancouver grows so will their business and that wholesale fish dealers are indispensible to the fish business of large cities. By a law of nature—whether it be for convenience of the retailers or for the sake of watching each other—the wholesalers of Vancouver are all grouped together in a certain district. The city of Vancouver proposes to build at some future date an up-to-date market for these firms, and there assist them by supplying at the least cost, all conveniences to make the handling of fish and the distribution of the same as sanitary as possible. This is only right, and the sooner this is done the better the wholesalers will be pleased.

Outside of a few companies that operate boats of their own, the trade depends upon the "mosquito" fleet of the Pacific for its supplies. A certain amount comes to the city by the coastal steamers, being shipped from way points between here and Prince Rupert. The idea that has been worked almost scientifically in Boston and has been adopted with the halibut in Seattle, seems to prevail amongst the buyers. The highest bid gets the fish every time. Certain Easterners have scoffed at the fishermen of British Columbia, stating that they do not know what weather is, and what fishing means. This is nothing to our discredit by any means. Nature has been kind enough to give us shelter that is denied our Atlantic brethren. Up to the present small boats only are utilized, for the markets have not been able to take care of all the fish that can be caught right amongst the islands and bays of the Straits of Georgia. Larger boats will come as soon as conditions will warrant, and the B. C. fishermen will be found just as daring and resourceful as any in the world. They have almost an advantage over other fishermen. The West usually absorbs all that is good from the East and adopts the good to fit in with the new conditions. Thus as the fishermen of British Columbia are composed of former fishermen of the Maritime Provinces, Newfoundland, New England, England, Scotland, Holland, Denmark, Norway and Sweden, it stands to reason that the joint skill brought from these countries ought to produce a piscatory skill equalled nowhere in the wide world.

Vancouver's stores are plentifully supplied with many most delicious forms of smoked and kippered fish. Summer time means that the housewife wants the least cooking to do as possible. Most parts of Canada have to be content with canned fish and other canned foods if cooking is to be avoided. Here we can buy ready cooked fish that can be used either hot or cold. Give a stranger a taste of kippered salmon and black cod, and he immediately asks where he can buy some more. The future promises Vancouver a very large trade in these lines. The transportation facilities at present are somewhat of a hindrance, but time and experience will overcome this. If any of the readers of the "Canadian Fisherman" would care to write to any of the firms mentioned here, they will receive full attention and the goods will be sent them if at all possible.

Thus taken all in all Vancouver occupies a unique position amongst the fishing centres of Canada. She is the financier, headquarters, wholesaler, curer, distributor, investigator and experimenter all rolled into one.

Wholesale Dealers and Shippers of Fish in Vancouver, B.C.

Canadian Fishing Co., Ltd.
New England Fish Company.
Canadian Fish & Cold Storage Co., Ltd., of Prince Rupert.
Crown Fish Co.
London Fish Co.
Dominion Fish Co.

Canadian Fishing Co.'s halibut fishing steamer "Celestial Empire."

Butterfield Mackie & Co., Ltd.
Watson Brothers.
International Fisheries, Ltd.
Western Fish Co.
Royal Fish Co.
Billinsgate Fish Co.
Pacific Coast Fish Co.
Urquhart & Mills.
F. J. Hayward.
F. E. Payson.

Smoked and Salt Fish Curers.

Canadian Fishing Co., Ltd.
Can. Fish & Cold Storage Co., Ltd.
Watson Brothers.
International Fisheries, Ltd.
Western Fish Co.
Royal Fish Co.
Scottish Canadian Fisheries.

CROWN FISH CO.—This company are selling agents for the Halibuter "Jessie" of Victoria. Their business consists of shipping to inland points and to the Prairie cities, fish of all sorts. They also have the contract for supplying of fish to different parts of the Canadian Pacific Railway systems, particularly to the hotels of that company. This calls for careful handling, and sources of supply that would tax all but those thoroughly well posted in the industry.

LONDON FISH CO.—This firm is, like the Crown Fish Co., situated on the Gore Avenue wharf. Its sheds are continually supplied with fresh arrivals of all fish in season. The manager of the London Fish Company hails, like the bulk of the Vancouver operators, from the Old Country, and has a clientele that brings his company a steady trade. The shipping end of the London Fish Co. forms a very large part of the business of the company, and the drivers of the different express companies never fail to call at the premises of this firm for packages destined to different points inland. In season a call at the London Fish Co. rarely fails to produce a between-meal appetiser consisting of the choicest shrimps and prawns. These species seem to be one of the specialties of this company.

WATSON BROTHERS.—The two gentlemen at the head of this business hail from the land of cakes, and have had considerable experience in their own line of business before coming to this coast. Unlike others of their fellow countrymen, they do not hold the belief that there are no herring in the wide world that can anywhere approach the famous "Lock Fyne." Acting on this belief, the firm of Watson Bros. promises to go far. The firm is also noted for its kippers, doing a large local and export trade in this savory breakfast dish. Other smoked fish put up by Messrs. Watson Brothers has travelled far and has been well reported of at many Canadian exhibitions, including that of Toronto. With the public educated to eating more smoked fish, this firm will have its hands busy taking care of the trade that will come to it. Messrs. Watson Brothers also thoroughly understand the curing of pickled fish, their goods fetching the highest market prices to be obtained.

DOMINION FISH CO.—This company are the local selling agents of the Columbia Cold Storage Company's halibut. As there are a limited number of operators in this commodity, the Dominion Fish Company are in a fortunate position to take care of the business offering them. Their local and rail shipments make their premises a busy place, and the care taken in packing and filling their orders bring many "repeats."

BUTTERFIELD MACKIE & CO. LIMITED.—This firm has branches in Victoria, New Westminster and also a packing plant at Alberni on the West Coast of Vancouver Island. The company catches, cures and smokes a great part of their output. Having been in business for a considerable number of years, the firm has a steady list of up-country clients that know they will get the best only from Butterfield Mackie & Co., Limited.

400,000 lbs. of frozen and glazed halibut in storage room of Canadian Fishing Company's Vancouver Plant.

ROYAL FISH COMPANY.—About the only firm consisting of purely Japanese operating in Vancouver is the Royal Fish Company. A great part of the fishermen on the Pacific Coast are Japanese, so this company is able to secure a steady supply of fish that enables it to give full satisfaction to their customers. They are smokers and also cure their own fish, doing a very large business in the shipment of all kinds of fish to Puget Sound points as well as to up-country points.

INTERNATIONAL FISHERIES, LIMITED.—Any visitor to Vancouver who has tasted smoked fish put up by this firm developes a palate that helps the whole industry. Their Kippered Salmon and Black Cod

finds a place on the tables of all classes of humanity in Vancouver and nearby points. This company also puts up a very good article in salt fish, and as the trade develops, cannot but have a large business in this special commodity.

WESTERN FISH CO. also are curers of Pacific Coast fish, putting up a brand of Kippers, Bloaters, Smoked Halibut, Kippered as well as in outside points.

URQUHART & MILLS.—These gentlemen were connected with the late Standard Fisheries, Limited, and when that company went out of business, these two live wires took root amongst the dealers of Vancouver. Whilst they are more recent comers to the "waterfront" still their energy and capacity for giving satisfaction has brought them a host of friends from all over Canada.

F. E. PAYSON.—This gentleman is more or less a recent comer to the ranks of the wholesalers. But previous to starting in business for himself he was connected with other firms in the city, and so is by no means unknown to the trade. Mr. Payson does a large business on the consignment basis, taking care that all fish shipped to him receives the highest prices to be obtained.

F. J. HAYWARD.—Shipper of frozen halibut and salmon of all grades and sales agent for many smaller and independent packers. Exporter of frozen and salt fish and fish products, whale and fish oils, and fish for the Oriental trade. Local agent for Eastern shippers of smoked and salted fish. Mr. Hayward first saw the light in the Land of Fish—Newfoundland—and after being educated at Oxford University, England, Mr. Hayworth came to Vancouver, B.C., and engaged in the fish business— which, considering his nationality, is not to be wondered at. The requirements of foreign markets has been his speciality and he has devoted a great deal of time in studying them and the opportunities for introducing British Columbia fish products. Mr. Hayward is a "live wire" and his experience and knowledge is always at the disposal of enquirers as to the conditions ruling on the Pacific Coast and opportunities offering in the fishing industry.

Canadian Fish and Cold Storage Co., Limited
Prince Rupert, B.C.

The huge plant of the Canadian Fish and Cold Storage Co., Ltd., is located on Seal Cove at the northern end of Prince Rupert Harbor. The establishment consists of well built wharves upon which are erected a six-storey steel and concrete Cold Storage building, constructed under the supervision of Mr. Geo. L. Clayton, of Prince Rupert, capable of storing and freezing 7,000 tons of fish—halibut, salmon, codfish and herring; a large engine house and boiler room for the refrigerating machinery, winches, heating and electric lighting; a machine shop for the repair of vessel's machinery; an artificial ice making plant; box making loft; gear storage; fish curing, dressing and packing rooms and a general store in which almost everything from a needle to an anchor can be purchased.

In addition to the cold storage plant at Seal Cove, the company also operate an up-to-date salmon cannery located some four miles across the harbor from the main establishment. The cannery is equipped with the latest and most modern machinery and cleanliness and care in handling fish is impressed upon all employees—Indian and white.

Three fine English built steel steamers—the "George E. Foster," "Andrew Kelly" and "James Carruthers"—all of 125 tons and capable of steaming 10 knots—are owned and employed by the company in halibut fishing by the long line method. Gasolene dory halibuters—the "Chief Skugaid, "Chief Zibassa," "F. H. Phippen," "Grier Starratt," are engaged in fishing in Hecate Straits. Gasolene boats "Fredelia III," "Donald D." and "W. R. Lord" are employed as cannery tenders and fish carriers, while a large three-masted schooner, the "Albert Meyers" was purchased for Behring Sea cod-fishing. A coal barge—the former Bath built American ship "Ivy"—is owned by the company and used for freighting the coal consumed in the storage, on the steamers and in the cannery.

The Grand Trunk Pacific Railway have a track extended out from their terminals to the cold storage and fresh, frozen and prepared fish can be loaded into seven or eight refrigerator cars at a time. The facilities for loading are of the best and heavy shipments of fresh and frozen halibut—as many as seven carloads in one day—have been going to the Eastern markets.

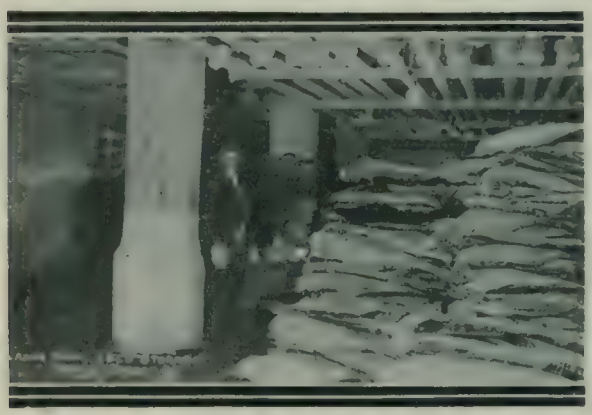
The cold storage almost constitutes a little colony at Seal Cove. There is a large boarding house located

From left to right:—Lieut. Nicholls, Mr. T. H. Johnson, Mr. H. C. Walby.

there and operated by the company for the single men on the staff and a club house will shortly be opened for the benefit of the employees.

Mr. Thomas H. Johnson, formerly of the well known Hull firm of Andrew Johnson, Knudson and Co., is manager of the concern, and since he took over the management about two years ago, the affairs of the

company have progressed under his direction in a highly satisfactory manner. Mr. Johnson served a long apprenticeship in the British fisheries and has adapted his knowledge to Canadian conditions—always with a view to development along sanitary and labor saving lines. He is a tireless worker and is as often on the wharf superintending the handling of fish as he is at his desk in the office, and in spite of his position as manager of a big concern, is as courteous and considerate to his humblest employee as to his biggest customer—a characteristic which has made him deservedly popular. It is not generally known among the trade that Mr. Johnson is an old soldier and possesses three medals—the King's and Queen's for South



Halibut in Cold Storage, Prince Rupert.

Africa and a decoration for the last China Expedition.

Assisting him in the management of the plant are Lieutenant Nicholls, Mr. W. Sundvig, and Mr. H. C. Walby. The former gentleman expects to leave for the front shortly. Mr. Sundvig is well known to the fish men and fishermen of the Pacific Coast having had experience in all branches of the industry as an actual dory fisherman to buying and packing fish. Mr. H. C. Walby as Sales Manager is well known to the trade in the United States and Canada. Like Mr. Johnson, Mr. Walby possesses several medals—not for handling a gun, however, but for his ability in handling a golf stick, as he is an expert in the "ancient and honorable game."

NEW WESTMINSTER, B.C.

New Westminster, located on the Fraser River, and about eleven miles from Vancouver, is one of the prettiest little towns in British Columbia. Good roads, handsome buildings and well-lighted streets and a magnificent highway from Vancouver tend to make New Westminster a very desirable place to live in.

Located in New Westminster is the plant of the St. Mungo Canning Company, Ltd. This company was organized in 1898 after the fire which devastated New Westminster and destroyed the property of the Western Fisheries Company. Mr. James Anderson was manager of the latter concern at the time of the fire, and after the conflagration he went to Glasgow, Scotland, and succeeded in interesting capital for the organization of the St. Mungo Canning Company, Ltd. St. Mungo is the patron saint of the great Scottish Metropolis and the motto which he is supposed to have handed down to the city is "Let Glasgow Flourish." The benediction of the ancient Scottish saint seems to have followed the operations of the company bearing his name in the Far West, and under the able management of Mr. Anderson, the St. Mungo Canning Company has indeed flourished and a very extensive business has been built up in fresh, frozen and canned salmon.

New Cold Storage buildings have just been erected with a capacity of one million pounds, and an ice-making plant producing ten tons of ice daily. The refrigerating buildings and apparatus were equipped by the Linde-Canadian Refrigeration Company, Ltd., and is one of the most complete and modern on the coast. The cannery operated by the company is located on the South Arm of the Fraser River five miles below the city and is an up-to-date plant having a capacity of 40,000 cases of salmon during the canning season fro July to October.

A Fraser River Sturgeon.

Mr. James Anderson is a kindly Scot combining a sincere and genial personality with the keen business acumen natural to the race. Like Mr. W. H. Barker, Mr. George Cassady, Mr. Peter Wallace and others, he is one of the famous "old timers" in the fishing industry of the West Coast.

. . . .

Messrs. M. Monk and Company have also a plant located at New Westminster and carry on a thriving business. Through the courtesy of this firm we are able to reproduce the photograph of a monster sturgeon which was entangled in a fisherman's net near New Westminster. This huge fish measured 13 feet 6 inches from snout to tail and weighed 905 pounds—the head alone weighing 188 pounds. These great fish were for a long time regarded as a pest by the salmon fishermen as they used to get entangled in their nets and up to a few years ago were not thought to be of any commercial value. The specimen shown is a good example of the "big" things which are common to a country of big mountains, trees and fisheries.

Canadian Fishing Co.. Limited, Vancouver, B.C.

Vancouver is similar to Boston, inasmuch as it is the only big City in Canada where fish is brought in from the open sea, marketed and shipped as it is from the famous T Wharf of the old New England centre. A small edition of T Wharf exists at the foot of Gore Avenue where the Vancouver fish docks are located, and the largest and best of them are owned by the Canadian Fishing Company, Ltd., and its sister concern—the New England Fish Company.

Both firms operate under the one management and upon the same premises, but the New England Fish Company is a western branch of the well known Boston fish corporation and its activities are largely in supplying the markets of the United States with halibut and salmon caught in the Pacific by the American vessels operated by the company which make their headquarters in Vancouver.

The Canadian Fishing Company, Ltd., is a Canadian incorporated organization employing Canadian registered fishing craft and catering to the home market as well as exporting to the United States. Each firm is distinct, though operating out of the same plant.

It is a revelation to the Eastern fish man to note the methods of handling fish in vogue at the Vancouver fish wharf. Everything is planned for speed and care in looking after a highly perishable product, and a tour through the plant is an education. Halibut, of course, is the principal fish handled, and it is shipped in a fresh, frozen, smoked and kippered state.

As soon as a vessel comes in, the fish are unloaded by means of strong nets out of the hold and dumped on to a platform where the heads are deftly slashed off. After being weighed, the fish are culled into market sizes—chickens, mediums, large—and then cleaned and washed. The fresh fish orders are sorted out, carried over to to the Shipping Department, iced, boxed, and loaded into C. P. R. refrigerator cars upon tracks which run through the building, but a few feet from the ship's side. The tracks are depressed so that the car doors are on a level with the floor of the shipping room and no fewer than 26 cars can be loaded at once. The company's staff can load a car with 30,000 lbs. of frozen fish in an average time of 17 minutes.

The Canadian Fishing Company's cold storage is a three-storey building of substantial construction covered with corrugated iron. Four rope drive compressors constitute the refrigerating machinery and the storage is equipped with five sharp freezers with a daily freezing capacity of 30,000 pounds of halibut, salmon, herring and cod, each. Altogether 150,000 pounds of fish can be frozen and glazed per day. Artificial ice is made by a special plant capable of making 50 tons daily, and ice can be delivered in blocks or crushed to any part of the plant by overhead chutes.

The Curing Department is located in a three-storey building at the shore end of the wharf and is well equipped with smokehouses, etc., for the production of smoked, salted and kippered halibut, salmon, codfish, herring and bloaters.

Employed in dory halibut fishing are the English built fishing steamers "Flamingo" and "Celestial Empire," and the auxiliary schooners "Pescawha," "Emma H."—both Nova Scotia built vessels—"Aurora," "Borealis," "Carlotta G. Cox," and "Zorra"—all of which are under Canadian register and owned by the Canadian Fishing Company, Ltd.

The New England Company operate the American dory halibut steamers "Kingfisher," "Manhattan," and "New England"—large oil burning craft with a cruising radius capable of taking them to the Behring Sea and back—also the auxiliary schooners "Knickerbocker," "Bay State," and "Prospector."

The success of both companies has been almost entirely due to the work of Mr. A. L. Hager, who is President, Treasurer, and General Manager of the Canadian Fishing Company, and Western Manager for the New England Fishing Company. This is quite an imposing number of offices for one man to fill, but

MR. A. L. HAGER.

Mr. Hager has ability enough to fill these and many more in subsidiary companies. Brought up in the busy fishery college of T Wharf, Boston, Mr. Hager graduated through all phases of the industry and came west to Vancouver with a thorough knowledge of the trade which he adapted to western conditions.

Though a very busy man with many responsibilities, Mr. Hager is a Prince of Entertainers, and is celebrated as such among the eastern fish men visiting the coast. Hospitality of the genuine western variety is personified in him, and his beautiful home on Shaughnessy Heights is a veritable "Liberty Hall" to his guests. He is a patron of athletics—baseball, hockey, lacrosse, boxing and motoring, and there is scarcely a Vancouver "fan" who does not know "Al" Hager. Motoring is the one recreation which he can find time to indulge in himself, and he is an expert in driving his own cars—one a British 60 h.p. Napier, and the other a Cadillac. To watch him manoeuvre either of

these around the fish wharf is a sight calculated to excite admiration and envy.

There is no Department of the two companies that he is not in touch with, and he superintends them all. His day is eighteen hours of work, and no matter where he is—at home or in the country—he takes his duties with him, and a well trained staff keeps him posted by telephone. Most of us would kick at being tied down to business in this manner, but Mr. Hager loves it and the success of the concerns which he manages is due to his making a hobby of his work. All features of the Fishing Industry of Canada are of interest to him, and he is a staunch supporter of the objects of the Canadian Fisheries Association, of which he is a Director, as well as a member of the General Improvement Committee.

HAYSPORT, B.C.

Haysport, B.C., is on the main line of the Grand Trunk Pacific Railway, 23 miles south-east of Prince Rupert and at the mouth of the Skeena River. Not far from Haysport is located the cold storage and wharves of the Skeena River Fisheries, Ltd., dealing in fresh and frozen salmon and halibut. The plant is of recent construction and is modern and up-to-date in every respect.

Skeena River Fisheries Plant, Haysport, B.C.

Mr. William Hamar Greenwood is president of the company and is well known to newspaper and magazine men all over Canada through his connection with the "Toronto World"—of which journal he was Managing Editor. His brother, Hamar Greenwood, is a member of the British House of Parliament.

Mr. Greenwood is a Director of the Canadian Fisheries Association, and though not exactly one of the pioneers of the Western fishing industry, has been on the coast long enough to have absorbed the virility which characterizes the fish men of the Pacific. From weilding the editorial pen to engaging in the fish business is quite a step, but Mr. Greenwood is of the type of man blessed with enough adaptability and versatility to tackle anything that looks like hard, uphill work. And the building of a successful fish business is hard work. As brothers in the "Fourth Estate" we wish Mr. Greenwood every success. The head office of the company is in Vancouver.

WALLACE FISHERIES, LTD.

Owning a string of salmon canneries upon the Skeena River, River's Inlet, and various outlying points in British Columbia, the Wallace Fisheries, Ltd., of which Mr. Peter Wallace is the President and founder, is one of the largest cannery concerns on the West Coast. The company put up an extensive pack every year—most of which is marketed through the firm's offices in Great Britain for British and Continental consumption. In this connection the following item from the British Fish Trades Gazette will be interesting as showing another instance of the big things from British Columbia:—

"Among some British Columbia 'Spring' salmon handled by Messrs. Grant and May, of Billingsgate, this week was one of gigantic proportions, the fish weighing no less than 84 pounds—three-quarters of a hundred-weight! Surely this must create a record. The fish did not come in any way into the category of "freaks," being well proportioned and perfectly formed. It was some 36 inches in girth and about 4 feet 6 inches long. The salmon was included in a consignment obtained by Messrs. Grant and May from the well-known firm of Wallace Fisheries, Ltd., of Glasgow and British Columbia, who are the possessors of one or two gold medals, which have been bestowed upon them abroad for the excellent way in which they handle these fish. The salmon was purchased by Messrs. Spiers and Pond, Ltd., and has attracted much attention at their fish department in Water Lane, Lud-

gate Hill, where it has been exhibited."

Mr. Peter Wallace is one of the real pioneers of the salmon fishing industry on the Coast. Born in the Iseland of Arran, Scotland, Mr. Wallace first came to Canada and engaged in the cattle business in the East. Later he came out to British Columbia and started salmon canning in a modest way in the days when the possibilities of the industry were not recognized. Developing his business in a thorough and substantial manner with that practical hard-headedness peculiar to the Scotch pioneer, the various plants operated by him grew to thriving proportions. Mr. Wallace is a director of the Canadian Fisheries Association and a man highly thought of by his many acquaintances for his many virtues.

Though mainly engaged in canning salmon, the company ship large quantities in a fresh and frozen state, and at their Alberni plant freeze and pack herring. The head offices of the Wallace Fisheries, Ltd., are in Vancouver, B.C.

care of the fish and shipping on the railroad cars for inland points.

Two very fine fishing steamers, the "Roman" and the "Onward Ho" are employed by the company in halibut fishing. Both these steamers were built in England and brought out to the Pacific for the Company. They are equipped as dory halibuters; constructed of steel throughout, fitted with numerous steam winches and electric light, and capable of steaming 10 knots an hour.

Mr. George Cassady manages the cold storage for the Association and under his able direction the business transacted by this particular branch of the Association's activities has progressed to a remarkable degree and heavy carload shipments of fresh and frozen halibut and salmon are now being forwarded to eastern markets in ever-increasing numbers. Mr. Cassady is one of the pioneers in the fish business on the West Coast and his genial manner, combined with the generous hospitality peculiar to the West, have made for

Salmon, St. Mungo Canning Co., New Westminster.

STEVESTON, B.C.

British Columbia Packers' Association.

In addition to the many canneries operated by the Association upon various rivers and inlets of British Columbia from the Fraser to the Alaskan boundary, the Association operates the Columbia Cold Storage Co., Ltd., with a plant located at Steveston—a port but a few miles from Vancouver and situated on the Fraser River.

The Cold Storage building has been but recently completed and is, without a doubt, one of the finest in North America. The chill rooms are spacious and well laid out and the refrigerating machinery, ice-making plant, etc., are of the latest and most up-to-date type. Space for the storage of a vast quantity of frozen halibut and salmon is provided for, and the facilities for the discharging of fishing vessels taking

him a host of friends among the Eastern fish men.

Imperial Cannery.

One of the largest and best equipped salmon canneries on the Fraser River at Steveston is that of the B.C. Packers' Association and known as the Imperial Cannery. The cannery is situated adjacent to the Columbia Cold Storage Co.'s plant and both are regarded as show places for tourists and visitors who come out from Vancouver by electric car.

In this cannery are packed the well known Imperial Brands of salmon and persons who have heard the derogatory remarks which have been made anent canned salmon by the ignorant only need to visit this cannery to see the slander refuted. Spacious, scrupulously clean and whitewashed, the buildings are a great deal better than many of the factories in which foodstuffs of other varieties are packed in other places.

From the moment the salmon are landed on the dock alive until they are canned they are handled with the utmost care and mostly by machinery. The employees are cleanly dressed and under strict superintendance by eagle-eyed foremen, and cleanliness and careful handling is almost an obsession with them.

The operations of that almost human machine—the "Iron Chink",—is always an object of interest to visitors. This wonderful apparatus takes the whole salmon, cuts off head and tail in one motion, strips off the back fins in another, and splits, guts and washes the fish in less time than it takes to relate. The weighing machine also excites admiration. The filled cans pass along to it upon a travelling belt and should one be over or less than the regulation weight—even to the fraction of an ounce—it is mechanically ejected.

No solder is used in the cans — the covers being clamped and clinched on by a machine which seals it absolutely air-tight, and even after the cans have been

Cannery Tender Collecting Salmon from Boats, British Columbia.

through the steam they are tested to see that they are not "blown." In the Imperial Cannery, the cans used are made upon the premises by special machinery.

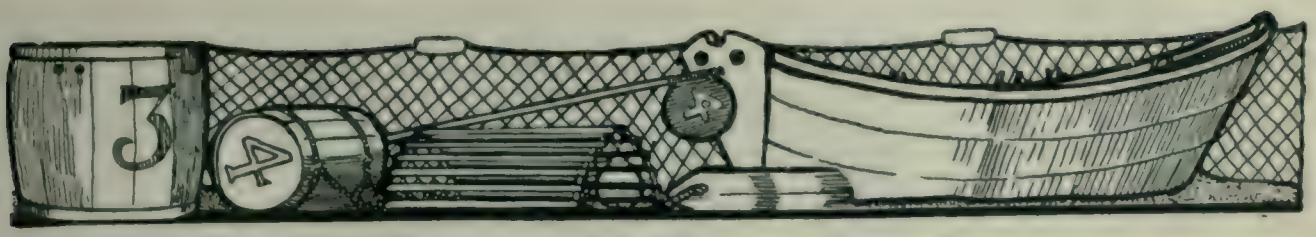
The Imperial is only one of the many canneries operated by the B. C. Packers' Association, who have plants upon the Fraser, Skeena, and Naas Rivers, River's Inlet and many other points on the British Columbia coast to the northern boundary.

Mr. W. H. Barker, President of the B.C. Packers' Association is also one of the Vice-Presidents of the Canadian Fisheries Association and a gentleman of is one of the pioneers of the cannery business on the Coast and has seen it grow from small and insignificant beginnings to one of the greatest and most valuable rare ability—quiet, kind and courteous. Mr. Barker fisheries in the world. At the present time he is the Chief Executive of a large and influential organization and it was largely through his efforts and ability that the British Columbia Packers' Association has attained the importance which it now possesses. When machine gun subscriptions were being made in Vancouver recently, Mr. Barker quietly wrote out a check for the cost of one and presented it to the Government and very few people heard of the contribution. Such is characteristic of the man, and in their quiet and unostentatious officer, both the B. C. Packers' Association and the Canadian Fisheries Association have a gentleman with whom it is an honor to be associated.

OYSTER SHELLS FOR CEMENT.

Down in Galveston Bay on Redfish Reef oyster shells have been accumulating for centuries and there are thousands of tons of the shells in the great heap. They were not looked upon as of use until recently when a company was organized to urnt them into cement.

A Dallas company has let a contract for the erection of a large cement mill to be built between Galveston and Houston. Seventeen acres of land have been acquired for a site and the construction of the plant is to be placed under way at once. Officers of the company say that they have been conducting experiments for several years in making cement out of oyster shells and have a process which is satisfactory. The plant will have a capacity of 300,000 barrels of cement a year and will be built so that capacity may be easily increased. The men behind the new plant have a cement mill at Dallas which has a capacity of over 1,200,000 barrels of cement a year.



THE ATLANTIC FISHERIES

DIGBY, N.S.

(Special Correspondence.)

Digby, N.S., famous as a tourist resort, is also famous as a fishing centre and the home of the "Digby Chicken" and the "Finnan Haddie." In addition to having a branch of the Maritime Fish Corporation, Ltd., located there, Digby possesses the largest offshore fresh fishing fleet in the Maritime Provinces.

Engaged in the fish business in Digby are the firms of J. E. Snow, Nova Scotia Fish Co., and D. and O. Sproule. All specialize in Finnan Haddies, fresh and salt fish.

The boat fi,shermen along the shore have not been securing as many fish during the last month as they were some little time ago, on account of dogfish putting in an appearance every day or so; some days when everything was looking right for good fishing, there would be one of these pests on practically every hook in certain vicinities, while other days they would have fairly good fishing.

The vessels have landed here as follows:—"Brittania," July 26th, 5,700 lbs.; August 13th, 5,440 lbs.; July 16th, 2,000 lbs. "Venus" July 26th, 16,965 lbs.; August 9th, 18,900 lbs.; August 13, 5,060 lbs. "Grace Darling," Aug. 12th, 62,400 lbs. "Loran B. Snow," July 26th, 46,000 lbs.; Aug. 3rd, 52,210 lbs.; Aug. 10th, 66,280 lbs.; Aug. 18th, 52,016 lbs.. "Lila Boutilier," after a broken trip in the mouth of the Bay on account of adverse fishing conditions, was forced to split and salt the results of two weeks' fishing, consisting of 50,000 lbs. cod and cusk.

"Albert J. Lutz," has not returned from her halibutting trip in the Gulf of St. Lawrence.

"Dorothy M. Smart" is at present lying at her dock undergoing changes and overhauling for the haddocking season, which is fast approaching.

The following is an extract from Fishery Officer Torrie's July report from Digby county to the department: Fish caught during the month, 779,300 lbs. cod; 475,600 lbs. haddock; 4,452,400 lbs. hake and cusk; 298,100 lbs. pollock; 866,900 lbs. herring; 21,700 lbs. mackerel; 400 lbs. alewives; 1,700 lbs. dried dulse; 1,000 lbs. albacore; 385 bbls. clams. Four boats were lost—one at Flower Cove, one at William's Point, and two at Little River, Bay of Fundy side.

Immense quantities of dry fish are being made ready for export, and the large drying yards of Digby are attracting the attention of the many tourists now here, who seem to take great interest in this end of the business. The drying this year has required the most careful attention of the fishing curing experts to bring them safely through the damp weather which has prevailed for the past six weeks.

BAY SHORE OF NOVA SCOTIA.

(Special Correspondence.)

In writing a review of the fishing transactions along the north shore of Nova Scotia on the Bay of Fundy side, the reader must not forget that it is one of the boldest shores around the province, and in consequence the most dangerous for fishing purposes. There are no harbors on a coast line of one hundred miles, and the toilers on the sea must depend on a number of breakwaters built by the government in the most secure places. The lobster season beginning the first of December of each year, really did not start till March in this locality because of the stormy winter months. Something near eight thousand crates of the crustaceans have been captured. These were all delivered to tank smacks that call along the shore and get them from the cars. The smacks go direct to Boston. Good prices have been obtained. There are no canning factories on this shore, and no lobsters are shipped in this way. At the same time the local market in the Annapolis Valley consume a very large proportion of the catch in the already boiled state. Because of the great loss in a storm in May, the shipment of lobsters have been much less than in former years, although there seems to have been plenty of the fish. The waters were restocked this year by the Dominion Government steam patrol boat coming up the Bay on Wednesday July 14, having on board in tanks one and a half million lobster fry, from the hatchery at Little River, Digby County. Half a million lots were deposited at Parker's Cove, Phinney's Cove and Hampton. They were about two inches long and were gently allowed to take the water a short distance from the shore to catch the rocks and seaweed. The run of salmon that commenced in June has been phenomenal. The fish swarmed along the shore and were caught by thousands in the weirs, and the local market was flooded with this delicious fish, and the price dropped to nine cents per pound. About fifteen thousand pounds were landed and mostly shipped to the Boston market; Halifax and St. John also takixng a good quantity. The catch of mackerel was very small owing to the fact that the schools do not come up the Bay much farther than Digby. Not more than a dozen barrels have been netted. Bait has been plentiful, and codfish and hake have been a good harvest. This product is dried and salted and mostly sent to the St. John dealers for export. Some twelve hundred barrels of herring, of which there has been a good run also went to St. John right from the water. Hake and haddock are now on the swim and are mostly caught off shore some twelve miles, after being season this goes to Digby and Annapolis dealers for a foreign market. While there are a large number of sail boats and fifty-ton vessels in the trade, yet there are some one hundred motor boats as well. Most of the shore

product passes through the hands of Capt. Herbert Anderson, at Parker's Cove, and Capt. Arthur Longmire at Hillsburn. The sales are spot cash at the boat side. And one man—Mr. Lewis Sabean of St. Croix Cove—has landed during the season something over four thousand pounds of Salmon, and is the highliner along the coast. To a press correspondent he said:—"The great war in Europe with the sound of the big guns has scared all of the wily salmon up into the Bay of Fundy." This has been a good year for the Bay of Fundy fisherman, and better than usual. Every family on the one hundred miles of shore are fishing. A few to the eastward of Hampton do a little farming as well. A storm in the last week of May that rushed across the Bay at fifty miles an hour for two days, carried great destruction along the shore line. This caught the half filled lobster cars on a rocky shore. For miles along the coast the cars were carried into the breakers and smashed up right and left. To such an extent was this destruction apparent that there was hardly a fisherman for miles but what lost upwards of one hundred dollars each. In addition to this, there were more than twelve gasolene boats piled up on the beach in a broken up condition. In the same storm the off-shore fishing schooner "Elmer" belonging Port Wade, and manned by Captain Harry White, his brothers Fred and Elmer, Alexander Nelson and Frank Covert, was at anchor riding out the storm off Parker's Cove Breakwater. After midnight the storm increased to such an extent that the anchors dragged, when the men took to the dory, which was capsized at the side of the vessel. Four of the men were drowned. The bodies were recovered and taken to their homes in the valley, where all had large families. The uninsured vessel was torn asunder on the rocks. This was the only loss of life along this shore this season, where hundreds of men ply their trade throughout the year.

CAPE BRETON.

Few people have any idea of the quantity of fish that was caught in the Gulf waters and shipped from North Sydney, C.B., the headquarters of the Buckworth, Mumby Company, to Cork, Ireland, during the present season. Recently the Company's trawler Andromanche, after fourteen days absence from port, arrived here with about seventy tons. This brings the total quantity of fish handled and shipped this season from the Dominion wharf to the Company's headquarters in Cork close up to one thousand tons, which, according to the high prices prevailing in the Old Country, represents a huge sum of money.

The catch of seventy-five tons taken by the Andromanche during the fourteen days absence, represents about $10,000 in the Irish market, so that it can readily be seen that the season's work by the company, so far this season in North Sydney, must be a very profitable one.

Speaking to Mr. Dunn, the company's representative here, The North Sydney Herald was informed that the quality of fish taken in the Gulf waters was superior to the Iceland catch. "It is really wonderful," said Mr. Dunn to a representative of this paper Monday morning, "the volume of fish that prevail in the Gulf. There seems to be no limit to the quantity, and as for the quality, I have already said it is the best to be found in the world, and commands a better price in the Old Country than the catches made elsewhere."

There are about four hundred tons stored in the new warehouse and on the wharf. This will be shipped direct to Cork sometime this week, or as soon as the barquentine Adonis arrives. Other shipments will follow, the intention being to have a small sailing vessel in readiness to keep the fish in transit as soon as the trawlers and the other vessels arrive at the Dominion wharf with their catches.

* * *

At Dingwall, C.B., Mr. Joseph O'Brien operates a general fish business—dealing in fresh and salt fish, oils and canning lobsters and salmon. Dingwall is in Victoria County about 75 miles from Sydney, and has a weekly steamship service from the latter port. Though in a small isolated port, Mr. O'Brien does a thriving business and takes a great interest in the fishing industry of Canada. He is a member of the Canadian Fisheries Association and was one of the first to support the organization.

YARMOUTH, N.S.

(Special Correspondence.)

The last few months have been rather dull from the standpoint of the fisherman and fish dealer except, possibly, in one or two special lines. The biggest splurge we have had this year was in mackerel and at present herring seems to have the call. Dogfish have seriously interfered with ground and line fish in that the vessels and boats were compelled to a large extent to give up operations for a time. The weather has been fairly good for making what fish have been caught and the quality of the dried fish will bear comparison with any. The market for fresh fish has been down but the outlook for both fresh fish and salt fish at present is not too bad. Our salt fish goes to the West Indies and South America, and these markets are firm; it is true there have been no advances as yet, but the prospects are good. Shipment of shredded fish to England has been resumed and the demand is likely to grow. On the whole the market outlook is good, although of course you will find pessimists who would not be satisfied if the fish brought its weight in gold—they would kick if the packages were not paid for at the same rate.

The herring market is a little inclined to be weak. The prices are off a little and as the catch is quite large there is not much prospect of a raise just yet.

Swordfish have been very plentiful off here this season. Yarmouth itself has not received so many of the fares, although quite a few have been landed here, but they have been brought in to the ports along the shore and shipped through this place to the United States. Our own people have not learned to eat them to any extent as yet, although it is almost always possible to get them in the local fish markets; and as for albacore—it is doubtful if six people could be found in Yarmouth who had ever tasted them, although a glance at the exports for the month will show that 294 five-hundred pound cases were shipped during the last month.

During the past few years butter fish have been quite plentiful but this year your correspondent has not seen one on the market and there have certainly been none shipped. What has happened to them I do not know; I generally have a lot of questions to ask when I am talking with the fishermen, but I must confess that I never once thought of butter fish, which after all, is really only a side line.

The exports for the last two months have been as follows: Fresh Mackerel, barrels, 7,102; Salt Mackerel, 98 barrels; Clams, 246 barrels; Fish Waste, 414 barrels;

Salt Herring, 171 barrels; Fresh Fish, 3 cases; Albacore, 294 cases; Fresh Halibut, 180 cases; Fresh Salmon, 210 boxes; Boneless Cod, 5,906 boxes; Pickled Fish, 300 cases; Cod Oil, 31 barrels; Hake Sounds, 26 barrels; Pickled Cod, 11 cases; Dry Salt Fish, 601 drums; Periwinkles, 23 barrels; Eels, 5 barrels; Codfish, 36 tierces; Glue Stock, 2 barrels; Fish Clippings, 15 barrels; Fish Scraps, 12 barrels; Boneless Cod, 882 boxes; Sturgeon, 2 cases; Live Lobsters, 283 crates; shad, 1 case; Canned Lobster, 1,058 boxes; Tunas, 9 cases; Swordfish, 600 cases; Canned Halibut, 4 cases.

NEWFOUNDLAND.

(From Our Own Correspondent.)

The Storm Fiend.

A terrific storm swept over the north-east coast of the Island from August 3 to 7th, and wrought great havoc amongst the fishermen. From all points northwards to St. John's daily reports no loss of life, though some fishermen had close calls. The storm has given a set-back to fishing for some time; though the fishermen are hoping that the great disturbance will have the effect of "shaking up" the fish on the grounds, and that hook-and-liners will have their innings after the weather gets back to normal.

We have had several casualties among the Banking Fleet, and it is feared that the Marion, of St. Jacques, and the Portia, have gone down with their crews. They have not been heard from since they started out on the caplin trip. The crews of the two vessels number 33.

The Norwegian steamer Drot from Boston to a Norwegian port cut down the Lunenburg schooner Metapedia on August 2nd, off Cape Race; and the Metapedia sank within five minutes of the accident.

The crew were brought into St. John's, and the Drot was libelled for $30,000. After putting up bonds for the amount, the steamer was released and left for her destination.

The crew of the Metapedia seem fully confident that there will be no difficulty in winning their case in the Admiralty Court, which is now sitting in special session.

The Bank Fishery.

The vessels have returned from last caplin baiting, and the net results are short of an average voyage. The vessels found fish scarce, and met with stormy weather. The aggregate catch, however, is ahead of last season's. The banking industry is confined to Placentia and Fortune Bays, and the catch will be shipped from western ports direct to European markets. Most of the Spring trips have been forwarded, and it is feared that congestion of the Portuguese markets will result in a sharp decline in price.

Fish freights have advanced recently, and this is a handicap to local purchasers. Four quintal casks are now costing $6.25, or about $1.60 per quintal. This will have a tendency to keep down the price.

Quite a number of banking schooners have cleared for Labrador where they will fish off the coast. Many of them will prosecute a gill net fishery, and others will go hand-lining or will use jiggers owing to the difficulty in securing squid baitings.

Squid are reported from some western ports and from Conception Bay, but the vessels had already gone without getting supplies. The gill netting is a comparatively new departure, and it will be watched with considerable interest.

The Shore Fishery.

The shore fishery to the northward (from Fogo to Quirpon) shows little improvement for hook-and-liners. Good catches for traps, however, are reported from Fogo District, and the voyage promises to ge a good one. There has been good fishing in Conception Bay; and large voyages have been landed at Harbor Grace, Carbonear, Fresh Water, and Bay de Verde. The recent storm destroyed a large number of traps, and little has been done since. From Cape St. Francis to Trepassey some exceptionally large catches are reported. Some traps at Bay Bulls, Witless Bay, Petty Harbor, and around St. John's have secured the largest voyages for years. One crew at Witless Bay is reported for 1,100 quintals. Cape St. Mary's and Placentia Bay report "nothing doing," and the outlook is gloomy. With the exception of St. Lawrence, Lawn, and Lamaline, the fishery on the south coast is poor. Yet it is hoped that if bait can be secured regularly, saving voyages may yet be secured.

Labrador Fishery.

The fishery in the Straits of Belle Isle is practically over for traps, and fairly good catches are reported. Vessels arriving from the eastern section of the Straits —from Chimney Tickle and Pleasure Harbor—are well fished. The report of the Sagona just received from the coast are discouraging; and there is little fish from Battle Harbor to Turnavick. This section of the coast represents the territory of the "Stationers" or room fishermen, and the catch is small. So far we have no reports of the "floaters" who have gone down to Mugford and Nachvack. We do not expect any definite news from them for some time to come, and the outlook is by no means cheering.

The whaler Cachalot operating at Hawke's Harbor is reported for 28 fish. This is largely in excess of last season's catch to date, and the prospects for a good voyage are regarded as most assuring. Whale oil is likely to fetch a high price, so that the shareholders of the Cachalot Company are rubbing their hands gleefully.

There is considerable anxiety regarding shipment of fish from the coast. Freights are high, and there are few carriers in sight. It is rumored that some of our sealing vessels will be requisitioned to carry fish across; but nothing definite is known about the arrangement so far. Formerly Norwegian steamers were engaged in the fish carrying trade from Labrador; but as better freights are offering in other directions, none of them will come out this year. Several Norwegian vessels are engaged by exporters of pit props from the Northern Bays, and should the Labrador catch be large, much of the fish will be carried to home ports.

There is likely to be some difficulty on the coast regarding the rice of fish. Formerly the fishermen sold it at "the current price," i.e., no specified amount was set down on their receipts; but the price was adjusted at the wind-up of the voyage. A recent decision handed down by Judge Emerson of the Supreme Court in the case of Noseworthy vs. Munn, will cause the fishermen to insist that the price be set down on the receipts. The official organ of the Fishermen's Union—"The Mail & Advocate"—edited by Mr. Coaker, President of the F. P. U., urges fishermen not to

accept less than $4.50 per quintal. What the outcome will be is problematical.

Mr. Coaker is in close touch with the situation, and he is necessarily the mouthpiece of the fishermen on the coast. The Union has a membership of some 22,000, and is the most formidable body in the country at the moment.

Mr. Coaker represents the District of Twillingate in the House of Assembly and is a most energetic and resourceful leader. His papers—The Mail & Advocate, and the Fishermen's Advocate (weekly) — reach the fishermen directly, and keep them in close touch with market and other conditions.

Lobster Fishery.

"The smallest pack on record! is the summary of the Lobster situation, and it is perhaps just as well for us locally that it should be so. Hundreds of cases of last year's pack are still unsold; and prices are not stiffening to any appreciable extent. The markets of our greatest lobster customer—Germany—have been closed since the outbreak of the war, and we are now trying to find purchasers elsewhere.

Fortunately, comparatively few fishermen were exclusively engaged in the lobster fishery this season, and the loss to suppliers will not be so great after the wind-up of the voyage. The season for the South and West coasts closed on July 24th.

To show how the fishermen viewed the situation, we give the following details of licenses issued:

Placentia District issued 563 licenses in 1914, only 105 this year.

Burin District issued 87 licenses in 1914, only 41 this year.

Fortune Bay, issued 335 licenses in 1914, only 111 this year.

Burgeo & LaPoile issued 124 licenses in 1914, only 37 this year.

St. George's issued 507 licenses in 1914, only 216 this year.

St. Barbe issued 398 licenses in 1914, only 252 this year.

Bonavista Bay issued 204 licenses in 1914, only 45 this year.

Twillingate & Fogo issued 273 licenses in 1914, only 83 this year.

Conception Bay and Southern Shore issued 86 licenses in 1914, only 27 this year.

The fishermen went out of the business voluntarily, and practically established a close season.

The best price quoted for this season's pack is, as far as we can learn, $13.00.

Salmon Fishery.

There is nothing of importance to say regarding the salmon fishery. The local catch has been small; and we understand that fishermen who do quite a salmon trade on the coast of Labrador were late in getting down. The "run" had been practically over in the great salmon centres, like Merchantman's Harbor, when the Fishermen reached the coast. Statistical information is nil, as our local Department of Marine and Fisheries does not seem to have the proper equipment or the requisite knowledge to furnish satisfactory data.

Cod Oil.

Refined oil for medicinal and similar uses has advanced in price, while common oil seems to be on the slump. It is quite probable that when we hear definitely from the Labrador fleet hat there will be a further decline. Hard wood packages are now quoted at $105 per tun, and soft woods at $100.

The Herring Fishery.

Owing to unusually large shipments coming into St. John's from western and northern ports, herring seem to be a drug in the market just now. They are down to $2.50 per barrel, and we understand some firms are repacking for shipment to the West Indies. It seems rather singular that with the almost total failure of Scotch herring shipments to the United States that our local product should be quoted at such a low price.

Fishery Exports for July.

(From Outports.)

Dry Codfish:		
To Europe	Quintals	26,704
Brazil		2,923
Canada		192
United States		162
		29,981
Pickled Codfish:		
To United States	Quintals	5,312
Herring:		
To United States	Bbls.	1,777
Canada		8,692
		10,469
Cod Oil:		
To United States	Casks	30
Salmon:		
To Canada	Tcs.	43

(From St. John's.)

Dry Codfish:		
To Brazil	Quintals	15,697
West Indies, etc.		4,767
Europe		1,264
United Kingdom		820
United States		45
		22,593

Also:—212½ tuns cod oil; 51 tuns cod liver oil; 21¾ cases lobsters; 26 tierces salmon; 124 barrels salmon; 5,059 barrels herring; 15 barrels dried caplin; 125 barrels turbot; 3 puncheons pickled splits; 1,440 seal skins.

Comparative Statement of Fish Exports for July.

	Dry Fish. Quintals.	Pickled Fish. Quintals.
1915	52,574	5,312½
1914	72,152	3,981
Decrease	19,578	Inc. 1,330

Notes.

Turbot fishing in Trinity and Fortune Bays is now becoming a recognized industry; $5 per barrel is being paid for the product by local buyers.

The schooner Spinaway, from Cadiz to Gaultois, H.B., picked up two Bank fishermen in their dory on August 1th, 40 miles S.E. of Cape Race. They were Arch Snook and Will Banfield of the Newfoundland banker L. M. Stanley, of Harbor Breton, and had missed their vessels during a dense fog.

Very little new fish is coming into the market. Those who brought in the first lots two weeks ago were paid

$6.75 for large, well cured quality. The price has since dropped to $6.25. On account of the high freights, merchants do not feel inclined to pay more than $6 at present. The freight on drums (to Brazil) ranges from $1 to $1.25 more than last year. But it is said that when the rush of new fish sets in and competition becomes keen, the price is likely to advance. It is expected that the price will be $6.50.

The Western Star says that another big Fish Packing and Exporting Company is in formation in Bay of Islands, with a capital of $50,000. It will be known as the "North Atlantic Fish Co." Gorton & Pew, and Cunningham & Thompson, of Gloucester, are already operating on the western side of the Island, and large shipments of salt bulk are being made from that section to Gloucester.

The "S.S. 33," employed by the Canadian Government Fishery Department arrived at Curling on Friday, August 6, for the purpose of conducting scientific fishery experiments. The S.S. Primrose arrived on the following day, bringing Canadian fishery investigators. It is said that they have obtained permission from our Government to conduct investigations in the various harbors along the coast.

It is said that some 2,000 casks of last year's fish still stored unsold at Naples; and there is a fear amongst shippers that owing to the war, Italy will not take such a large quantity of our fish as in former years. The reason assigned, is that owing to the high price of fish caused by high freights, and exchange, Italian peasants cannot afford to purchase our products.

ST. JOHN'S, NEWFOUNDLAND.

(Special Correspondence.)

The trapping season has just ended. The voyage on the whole has been fairly successful, and those districts where all along fishing had been poor the fishery picked up considerably during the last ten days. No exceptionally large catches have been secured, but on the whole the result is much better than for five or six years as nearly every fisherman has secured a saving voyage. In the district of Trepassey, where the outlook was worse for a voyage than anywhere else on the coast, large hauls of fish were secured last week. A day or two before the fishermen began to take in their traps for the season violent storms raged all around the coast. Nearly every trap has been more or less torn, whilst some were lost completely.

The hook and line fishermen have not done so well to date. Heretofore at this season of the year squid would have made its appearance, but as yet only a sign has been secured at Bonavista and Lawn, respectively. The great majority of "'hook and liners" are completely dependent upon squid for baiting, and if it fails to be obtained in any quantity soon it will mean that little or no fishing will be able to be done for the two months yet left to fish. The amount of fish usually taken on the squid baiting is about one hundred thousand quintals.

Reports from the Labrador coast during the week show that though very little fish has been actually landed, yet the prospects are for good work soon.

The S.S. Sagona reports on the southern end of the coast, when opportunity offers, good catches are being made, but that the frequent gales are interfering with operations severely. Hook and line men are doing much better than trappers, as the large bulk of the fish still continues to remain off in deep water.

On the northern end of the coast, fish is just striking in, and from Makovick to Cape Harrigan, a very good sign is being obtained.

The majority of the "floaters" are all down on the northern part of the coast with about one hundred quintals each.

The very latest news received by Marconi from Labrador, says that on Southern Labrador fish has struck in, and since the 12th of the month good fishing is being done.

Fish on the banks still continues very slack. Large numbers of bankers have gone to the Strait of Belle Isle and Labrador, there to continue the voyage till the season is over. Besides using trawls, some of these vessels will give the gill nets a try out. These vessels, from reports, have done well, since going to Labrador, and fine catches are being daily secured.

The lobster fishery closed over two weeks ago. The catch is very short, being even shorter than last year, which was the smallest on record. Lobsters are being sold locally for $12.50 per case. No new pack has yet been offered to the trade, but no advance in price is expected to take place this year.

The turbot fishery—a new industry—proved most successful for those prosecuting it. In Trinity Bay particularly large catches have been secured, which have sold for $5.00 per barrel.

During the last two weeks turbot have slackened off considerably, and little is now being caught. This promised to be a big fishery from now on. Common cod oil is still falling in price, whilst the refined oil shows an upward tendency. Common cod oil one month ago was sold for $126.00 per tun and with a strong market. This week few sales could be made for more than $100.00 per tun. This has been caused largely by the reports of good fishing voyages having been secured all around the coast.

Refined oil advanced during the week from 95 cents to one dollar, and is certain to have a still further rise as the season advances. Very little refined oil has been preferred this season.

The one whale factory operating on the Labrador Coast has to date secured about forty whales and the prospects for a very large voyage is good.

Large quantities of herring are offering to the trade, but find few purchasers. Some of the herring packed during the herring season were found to be done poorly, and hundreds of barrels were found unfit for use. This had the effect of demoralizing the market for all Newfoundland pack, which was felt by the good as well as the bad pack.

Herring is now being offered to the trade at prices ranging from $2.25 to $2.70 per barrel. Large quantities have recently been shipped to markets in the West Indies.

The following vessels took herring cargoes during the week for Canadian ports:—The Colonia, with 1,225 barrels, for Halifax; the Arthur D. Story, with 1,000 barrels, for Halifax; the Rupert, with 770 barrels for Halifax. Shipments of herring to Canadian ports have been made all during the summer. The price that is likely to be paid for this season's catches of codfish is the most important topic in fishing circles just now.

All during July the consumption of Newfoundland fish stocks in the markets was much greater than the Norwegian article, and consequently the price $6.25 was obtained for fish shipments locally. Last week,

however, the freight rate of $4.00, on a cask of fish across the Atlantic climbed up to $8.00, and partly in consequence no sales were made during the week at a figure higher than $6.00. The large majority of the fishermen, however, expecting that an advance will take place later in the season are electing to hold on to their catches. There is a possibility that if prices go higher, and this added to the exorbitant freight rates, that the great bulk of the people who buy Newfoundland codfish in the market, will no longer be able to do so, and a decline will ensue in consequence.

PORT ARTHUR, ONT.

(Special Correspondenc.)

The fishing business has been pretty fair here this year. This is the slack season just now, but it will pick up from now on, and the big fish (trout) will be coming in the first of September. These are called Siscoes, and are salted, and put in kegs or barrels.

There are two fishing firms in Port Arthur. The J. Bowman Fish Company, and the Dominion Fish Company. They have fisheries at different inland lakes, which are beginning to supply their share of fish to the Canadian and American markets. The quality of the fish from some of these lakes compares very favorably with Lake Superior fish. There are vast numbers of these lakes that are not fished, on account of the poor transportation facilities. A railway that will open up a large number of these lakes for fishing purposes is the new Canadian Northern.

In the vicinity of Port Arthur there are about twenty-five tugs, and a number of smaller craft engaged in the fishing industry, not counting those on the inland lakes, where gasoline boats are mostly used.

Mr. Spooner from Montreal was a visitor here. He handles Lake Superior fish in the East.

THE SEA LAWYER.

I've sailed the ocean blue, I guess for nigh on forty years,
I've laughed with South Sea Islanders and cried equator tears,
But, mark me well, although the life is certainly not fair,
It beats th' land, for havin' Peace, and sartin' legal care.
In town th' Local Judge, says he: "Bill Johnson—YOU once more!"
And Me, sez I:—"Judge speak it out—I know you've got th' floor."

Once let th' sails bulge out with wind and salt spray douse me eye;
And Courts, from here to Tim-buck-too can never ask me:—"Why?"
Sea lawyers take a fellow's case once he gets back to port.
And once a year you do your bit like any landsman sport.
But days speed on an' months drift past, with only sea and space
And nary run of legal lore to poke you in th' face.

I mind that time when Me and Jim put in at Hoola Sound;
Hawaiian gals kept teasin' Jim and yankin' him around,
And Jim—he grabbed one purty lass and kissed her, fair an' fine
With all them grumpy native guys a-watchin', down th' line.
Before we knowed it—Bing! A cop—(They have 'em on th' Isle).
And Both of us was pinched fer fair for stealin' of a smile.

Sea Lawyer—sure—he got us out. That's when they come in great
But these here dry land shyster kind are sure to seal yer fate,
I rec-collect down Hong Kong way, we rammed a Ke Ying boat,
And six big yellow pig-tailed ghouls was tearing at me throat.
I stuck up one and knocked down four but, somehow in th' fuss,
Their local Law, such as it is, got speedy wind of us.

A Chinese Court, or Courts Japan, ain't nothin' for to brag,
But off we got, as slick as oil—with pearls—and other swag.
T'was HIM, as done it—him as waits, around each blooming port
An' for a pinch of Transvaal gold will help th' troubled sort.
And so it goes, th' Four Seas 'round, from Boston out to Nome;
I'd rather be pestered by ONE sea-shark than all uv th' bunch 't home.

Th'minute that I pays my fine or serve my little term,
And, Judges wise-er otherwise, give way to search fer sperm,
When, in me face, th' Trade Winds blow—th' canvas whips a song,
And God, himself, smiles at th' breeze that sends our craft along.
Then—then serene content I know—my legal woes is o'er,
I'd ruther face ten thousand sharks than them I meets on shore.

W. LIVINGSTON LARNED.

PRINCE RUPERT TO MONTREAL IN FIVE DAYS.

From Prince Rupert to Montreal in five days is the record of the Grand Trunk Pacific and transcontinental train. The distance is in the neighborhood of 5,000 miles. This record was made by a recent train which had a big shipment of fish, which is one of the industries the Grand Trunk Pacific is laying itself out to cater to in every way. As Mr. Morley Donaldson, the general manager, says, that is susceptible of almost indefinite expansion. The record will be bettered before long, as the connections will be made closer, and, of course, there will be a saving by using the Scotia Junction route instead of going through Toronto. The point of interest is, that according to the officials of the Grand Trunk Pacific, there are indications that the service will supply a large want, a want which will grow before one would ordinarily recognize it.

THE PACIFIC FISHERIES

(Special Correspondence.)

The Seattle halibut steamer "Zapora" has just been completely overhauled. Her hull has been scraped and painted and her engines thoroughly overhauled, and new water tanks installed. She has also had additional fuel oil tanks put in which brings her capacity up to 800 barrels. The cost of the labor and overhaul amounts to $14,000.

* * *

Mr. P. L. Smithers, Vice-President of Booth Fisheries Company, who has spent some time on the Pacific Coast looking into business conditions here, returned to his office at Chicago the latter part of July. While on the coast he visited Seattle, Vancouver, Prince Rupert, Ketchikan and Alaska points. He also negotiated the sale of the Gorman cannery interests, which interests were taken over by his company.

* * *

Mr. A. W. Sterrett, Superintendent of New England Fish Company, Vancouver, B.C., and Mr. Harold Synnestvedt, resident manager of New England Fish Company, Seattle, Wash., spent several weeks visiting Northern British Columbia and Alaska Points in the interests of their company during the latter part of July.

* * *

Mr. Russell Kearley, business agent at Vancouver of the Halibut Fishermen's Union of the Pacific, visited the San Francisco Exposition during the latter part of July. He went there as representative at a Convention of the Sailor's Union. His wife accompanied him.

* * *

There was a serious ice famine at Prince Rupert the latter part of July, owing to the limited freezing capacity of the cold storage there. The fish business was curtailed until ice could be imported from the plant of the New England Fish Company at Ketchikan. A number of Prince Rupert fishing vessels had to visit Ketchikan to procure their ice there. It is understood that the cold storage at Prince Rupert is increasing its ice capacity to avoid future trouble of this kind.

Mr. Chris Olson and Mr. J. P. Todd, two prominent fish men of Seattle, visited Prince Rupert the latter part of July to look into the condition of the fish business there.

* * *

We understand that all stocks of mild cured salmon in British Columbia have now been cleaned up and shipped East, the last shipment leaving the coast about the first week in August.

The refrigerator steamer "Elihu Thomson," which for many years has transported frozen fish from Alaska to the rails has been chartered by the Alaska Steamship Co. The vessel will still ply in the Alaska trade.

* * *

On July 29th the Seattle halibut steamer "Chicago," of the Booth Fisheries Company, struck a rock off Race Point, Seymour Narrows. The "Chicago" was bound for the fishing banks with a heavy deckload of coal, and her usual supply of ice and bait. The vessel struck in a heavy fog while going at full speed, and the position of the vessel was so dangerous that some of her cargo had to be jettisoned. The vessel worked herself loose from the rocks, however, and returned to Seattle where she is being repaired by the Seattle Construction & Dry Dock Co., at a cost of approximately $10,000.

* * *

Mr. E. S. Busby, Chief Inspector of Customs for the Dominion of Canada, spent some time on the Pacific Coast during the latter part of July, and the first of August. One of his missions while in British Columbia was to investigate the workings of the Order-in-Council, allowing American fish to be shipped through Canada in bond to the United States. It is understood that when Mr. Busby's report is received, amendments will be made to the Order-in-Council now in force so as to facilitate the handling of this business.

* * *

Mr. George Cassady, manager of the Columbia Cold Storage Branch of the British Columbia Packer's Association, spent a month visiting the trade in Eastern and Western Canada, arriving home at New Westminster the middle of August.

* * *

Mr. J. Maddock, manager of the newly-formed Glacier Fish Company, returned the latter part of July from a visit to the cold storage hulk "Glory of the Seas" which is in Alaska freezing a pack of halibut and salmon.

* * *

The canners at all other points along the coast report an exceptionally good season and all canneries, except to fill their cans. Figures are not yet available as to in the Fraser River district seem to have been able the total number of cases packed, but the canners have all had a good year, except in the Fraser River District.

F. W. Wallace, the youthful looking but wise editor of the "Canadian Fisherman" and secretary of the Canadian Fisheries Association, has just returned to Montreal after a prolonged visit to the Pacific. He was out in connection with the Association and also in the interests of the paper he edits. Mr. Wallace at the same time gathered the latest Western American slang, and was initiated into the mysteries of halibut fishing on the Pacific. Fred. William paid us the great compliment by stating that he would like to settle on this coast. We welcome all who have the courage of their convictions, and feel that Mr. Wallace's old connections will have to be very nice to him to keep him with them. Whatever happens he will always be welcome when he comes to British Columbia again, as he made a host of friends out this way.

* * *

The salmon run on the Fraser River has to date been almost a total failure. At the time of writing (Aug. 19th) the gill netters have delivered about 400 fish on an average to the canneries. The price started at 35c for sockeyes, but has been raised to 40c, with the prospects of going higher. It is hardly likely, however, that the sockeyes will run in any quantities at this late date. The canneries are now looking forward to be able to fill their cans with hump-backs and cohoes, the ruling price being 3c for hump-backs and 20c to 25c for cohoes.

* * *

Just before going to press a despatch reaches us to the effect that the hump-back run on the Fraser River has failed to materialize, and it now looks like a big failure for the canning season in the Rraser River District. The failure of the hump-back salmon to run is something unprecedented. In order to complete Chinese labor contracts and to fill the empty tins, it will be necessary for the cannery-men to operate throughout the fall season and run the canneries. This will undoubtedly mean that the fishermen will get higher prices for their cohoe salmon than for many years past.

* * *

On July 21st Ketchikan, Alaska, experienced one of the severest electrical storms in its history. The lightening struck the generators at the plant of the New England Fish Company, and they were completely burned out. The lightning arresters, however, saved the current from getting into the motors in the engine room of the plant.

* * *

Mr. F. H. Cunningham, the Dominion Chief Inspector of Fisheries for British Columbia, holds the rank of captain in the Canadian Militia. War weddings being the fashion these days, he followed suit and went to Victoria a few days ago. There he was married, and is receiving the congratulations of his host of friends in the Province.

* * *

R. J. Graham, of Belleville, Ontario, who recently purchased the Scottish-Canadian cannery at Steveston, B. C., reached the coast early in July. A company to be known as The Graham Company has been incorporated for the purpose of carrying on the business. Since purchasing the plant Mr. Graham has had it thoroughly renovated, some new machinery added, and other improvements made, and it is now in operation. Mr. Graham is interested in several fruit and vegetable canneries in Ontario.

Mr. W. R. Spooner, selling agent for the National Fish Company was visiting Western Canadian points in the interests of his company.

* * *

Some weeks ago a rumour was around to the effect that the Booth Fisheries Company intended operating at or near Prince Rupert. In June, P. L. Smithers, the Vice-President of the company, visited Prince Rupert and decided that his company had no intention of making any immediate change. He advised the Northern port to try to build up its own fleet and if the business grew extensively enough, a branch of the Booth Fisheries Company at Prince Rupert was probable.

* * *

An interesting case was tried in West Vancouver a few days ago. Peter Seelis & Co. were summoned for sending around a salmon collecting boat and buying fish from boats attached to various canneries. Notice was given of the boats attached to the canneries and warning given. The canners took the ground that as they had contracted up with the boats and had advanced gear and monies to the fishermen, the fish caught was the property of the canneries. The case was dismissed on trial.

* * *

Halibut is evidently getting scarcer and scarcer and it looks as if there will be no cheap frozen fish this year. Seattle is getting very little, almost all the independent boats landing their catches at Prince Rupert owing to its proximity to the grounds. It is even reported that Seattle will be asking 8c this coming winter.

PACIFIC HALIBUT FARES.

(American arrivals at Prince Rupert from July 15 to August 15, 1915).

1915.		Lbs. Halibut.
July 15.	—Shamrock	25,000
	Eureka	6,000
	Caygeon	5,000
	Fram	14,000
July 16.	—North Cape	8,000
	Mira	11,000
17.	—Mars	11,000
18.	—Dolphin	12,000
	Olga	10,000
19.	—Valhalla	10,000
20.	—Cora	8,000
21.	—Vesta	20,000
22.	—Lillian S.	6,000
23.	—Kodiak	20,000
	Lincoln	8,000
24.	—North Cape	6,000
	Rainier	10,000
	Aurora	8,000
26.	—Eureka	8,000
27.	—Olga	6,000
28.	—Seagull	13,000
	Fram	12,000
	Mira	12,000
29.	—Athena	18,000
	Shamrock	22,000
30.	—Jennie F. Decker	10,000
31.	—Vancee	9,000
Aug. 3.	—Northcape	9,000
4.	—Vesta	24,000

6.—Seagull 16,000
Vancee 7,000
7.—Sitka 60,000
Malola 30,000
Shamrock 30,000
9.—Tom and Al 50,000
10.—Athena 16,000
Constitution 18,000
11.—Tordenskjold 40,000
12.—Alten 12,000
San Jose 10,000
Jennie F. Decker 26,000
14.—Lillian 6,000
Panama 16,000

(Canadian Arrivals at Prince Rupert from July 15 to August 15, 1915).

1915.

July 15.—Anna D., (The Canadian Fish & C. S. Co., Ltd.) 10,000
16.—Roald Amunsden, (The Canadian Fish & C. S. Co., Ltd.) 6,000
17.—Zorra, (Atlin Fisheries, Limited) 9,000
18.—Maud, (The Canadian Fish & C. S. Co., Ltd.) 6,000
Skugaid, (The Canadian Fish & C. S. Co., Ltd.) 50,000
Zibassa, (The Canadian Fish & C. S. Co., Ltd.) 50,000
19.—Iskum, (Atlin Fisheries, Limited) 26,000
Unity, (Atlin Fisheries, Limited) 5,000
21.—Pandora, (The Canadian Fish & C. S. Co., Ltd.) 10,000
22.—Kelley, (The Canadian Fish & C. S. Co., Ltd.) 100,000
Foster, (The Canadian Fish & C. S. Co., Ltd.) 100,000
24.Tuladi, (Atlin Fisheries, Limited) 15,000
Starratt, (The Canadian Fish & C. S. Co., Ltd.) 30,000
26.—Royal III. (Atlin Fisheries, Ltd.) 8,000
27.—Vasa, (The Canadian Fish & C. S. Co., Ltd.) 20,000
Zorra, (Atlin Fisheries, Ltd.) 10,000
28.—Elola, (The Canadian Fish & C. S. Co., Ltd.) 6,000
Borealis, (Atlin Fisheries, Ltd.) 28,000
29.—Skugaid, (The Canadian Fish & C. S. Co., Ltd.) 45,000
Carruthers, (The Canadian Fish & C. S. Co., Ltd.) 100,000

Aug. 2.—Unity, (Atlin Fisheries, Ltd.) 5,000
Zibassa, (The Canadian Fish & C. S. Co., Ltd.) 47,000
4.—Starratt, (The Canadian Fish & C. S. Co., Ltd.) 27,000
5.—Ed. Rodel, (The Canadian Fish & C. S. Co., Ltd.) 5,000
6.—Zorra, (Atlin Fisheries, Ltd.) 5,000
Rose H., (The Canadian Fish & C. S. Co., Ltd.) 8,000
9.—Skugaid, (The Canadian Fish & C. S. Co., Ltd.) 50,000
Chief Zibassa, (The Canadian Fish & C. S. Co., Ltd.) 20,000
Tuladi, (Atlin Fisheries, Ltd.) 15,000
11.—Celestial Empire, (Atlin Fisheries, Ltd.) 20,000
12.—Manhattan, U.S. (Atlin Fisheries, Ltd.) 60,000
Haysport, (Rorvik Fish Co.) 12,000
13.—Borealis (Atlin Fisheries, Ltd.) 10,000
14.—G. E. Foster, (The Canadian Fish & C. S. Co., Ltd.) 120,000
Carruthers, (The Canadian Fish & C. S. Co., Ltd.) 40,000

(Arrivals at Vancouver, B.C., from July 15 to Aug. 15, 1915).

July 15.—Flamingo, (The Canadian Fishing Company, Ltd.) 115,000
16.—Jessie, (Crown Fish Co.) 15,000
19.—Celestial Empire, (The Canadian Fishing Co., Ltd.) 85,000
20.—New England, (New England Fish Company) 140,000
21.—Trapp, (The Canadian Fishing Co., Ltd.) 22,000
22.—Carlotta G. Cox, (The Canadian Fishing Co., Ltd.) 62,000
26.—Pescawha, (The Canadian Fishing Co., Ltd.) 62,000
26.—Pescawha, (The Canadian Fishing Co., Ltd.) 60,000
Manhattan (New England Fish Co.) 82,000
27.—Flamingo, (The Canadian Fishing Co., Ltd.) 85,000

Aug. 2.—Celestial Empire, (The Canadian Fishing Co., Ltd.) 75,000
3.—Iskum, (The Canadian Fishing Co., Ltd.) 26,000
4.—Carlotta G. Cox, (The Canadian Fishing Co., Ltd.) 75,000
Jessie, (The Canadian Fishing Co., Ltd.) 35,000
9.—Flamingo, (The Canadian Fishing Co., Ltd.) 75,000
Pescawha, (The Canadian Fishing Co., Ltd.) 70,000
Emma H., (The Canadian Fishing Co., Ltd.) 35,000
Trapp, (The Canadian Fishing Co., Ltd.) 15,000
10.—New England, (New England Fish Company) 115,000

(Arrivals at Steveston, B.C., from July 15 to August 15, 1915).

July 16.—Roman, (Columbia Cold Storage Co.) 100,000
29.—Onward Ho, (Columbia Cold Storage Co.) 115,000

Aug. 4.—Roman, (Columbia Cold Storage Co.) 90,000
11.—B.C.P., (Columbia Cold Storage Co.) 30,000

NOTE:—The Canadian Fishing Company, Limited, and Atlin Fisheries, Limited, are subsidiaries of New England Fish Company.

FISHING NETS FOR RUSSIA.

An article in which Canada might take an interest is fishing nets, hitherto supplied from Germany. The measurements are 25 to 75 meshes broad, made in meshes of 10 to 44 millimetres wide, of hemp or cotton of various thicknesses. Annual purchases amount to 75,000 pieces, 160 metres each in length.

Larger nets 150 meshes broad, in meshes 16 to 57 millimetres wide. Annual purchases, 325 tons.

GASPE FISHING GOOD.

That the codfish catch on the Gaspe coast this year is the greatest in history, being estimated at forty million pounds is the report brought to Fredericton this week by commercial travellers who have just covered the territory.

The fishing district along the coast from Paspebiac down to Gaspe is starting upon one of its most prosperous eras as a result of the great catch, the whole forty million pounds being taken in that district which extends over about 100 miles of coast line.

Some remarkable reports of big catches are being made, three men in one week getting 72 drafts, a draft being 280 pounds of split fish with the heads and insides removed. Buyers are gathered along the coast from a wide range of territory, the buyer from Gorton and Pugh of Gloucester, Mass., having already bought about ten million pounds, while Mr. Fitzgerald, the veteran buyer for Job Brothers, of Newfoundland, is one of the heaviest buyers. The latest price quotation was $5.50 per quintal of 112 pounds.

INSPECTION OF PICKLED FISH.

Department of the Naval Service,
Ottawa, August, 1915.

The following circular has been received from the Naval Service Dept.:—

Sir:—

You are no doubt aware that in the course of last year an Act was passed to provide for the inspection and branding of pickled fish such as mackerel, herring, alewives and salmon.

The object of this Act is to make general the use of a strong, well-made barrel for the marketing of such fish in; also to raise the standard of curing and grading the fish, so that the cured article may, with confidence, be bought and handled by dealers, to the advantage and profit of fishermen and dealers alike.

The inspection will be carried out before the fish leave the hands of the fisherman or packer, and the Department has provided a number of competent inspectors whose services will be entirely free of charge to either the fisherman or the dealer.

The Act does not make inspection compulsory, however, and while fishermen and packers freely admit the need of inspection, it is expected that they will not be much inclined, especially at the beginning, to pay the higher price of the regulation barrel in order to secure the brand, without some assurance that they will be repaid for the extra cost.

By means of public meetings and the distribution of printed instructions, the Department in the course of last winter and spring, explained to packers and fishermen all over the Atlantic coast the meaning and intention of the Act, and pointed out the benefits that are sure to follow the adoption of the brand.

It is realized, however, that the matter of inducing fishermen to pack their fish in accordance with the Act can be most effectively accomplished by the dealers in and buyers of the cured product, and unless they heartily do their share along this line there is little hope of speedy improvement in the business.

You doubtless know, by experience, something of the trouble and loss caused year by year by the persistent use of slim barrels and the unsystematic curing and grading, and, as a general application of the branding system will be directly beneficial to you as a merchant or dealer, the Department takes this means of appealing to you, personally, to co-operate with it in its endeavour to permanently improve conditions in the pickled fish business to the extent, at least, of intimating to fishermen and packers, before buying your supplies of pickled fish, that you are prepared to pay more for and to prefer fish packed in the regulation barrel, bearing the Government Brand.

I may add that the members of the Boston Fish Bureau, at a recent meeting with a representative of this Department, expressed their high appreciation of the Department's inspection scheme, and assured the Department, through its representative, that they would gladly help by encouraging those who may ship branded fish. I shall be very greatly obliged, therefore, if you will be good enough to give to this matter your serious personal attention, with a view to helping forward the work.

I am, Sir,

Your obedient servant,

G. J. DESBARATS,
Deputy Minister of the Naval Service.

Fisheries Exhibit, Canadian National Exhibition, Toronto, 1915.

CURIOUS EFFECT OF WAR ON FISH.

A report from Consul-General S. Listoe at Rotterdam, published in Commerce Reports issued by the Department of Commerce at Washington, contains many detailed figures as to recent movements of commerce at that important Holland port, with comparisons showing the effect of the war on Dutch trade.

Although Mr. Listoe does not attribute all the changes noted to existing hostilities in Europe, he carefully includes the following two interesting items:

"Total number of shads offered for sale in 1914 was 1,559 against 1,156 for 1913.

"Three sturgeons were offered for sale in the Rotterdam market during 1914, against one in 1913, while 26 were sold at Hardinxveld, or the same as during 1913."

While it is obvious that Mr. Listoe is a careful statistician, it would seem that he might have figured out the percentage of increase, especially on sturgeon, for the benefit of his readers in the United States.

THE USE OF REFRIGERATION AND FISH SUPPLY

(Trade and Commerce Bulletin.)

The possibilities for enlarging the available fish supply of the United Kingdom by the more extensive use of refrigeration is discussed in the following article which appeared in the issue of the "Cold Storage and Produce Review" of May 20, 1915. This question is of direct interest to Canadians in view of the large supplies of fresh fish available from the Pacific coast, and it is important from its relation to the notices with reference to the market in the United Kingdom for frozen fish from British Columbia, which have appeared in recent numbers of the Weekly Bulletin.

Fish and Refrigeration.

Almost the only important food industry in Great Britain the members of which have so far considered it unnecessary to call in the aid of refrigeration, is the fish trade. The reason for this is not far to seek; England with its ample and accessible seaboard is in the exceptionally favorable position of being able to draw immense supplies of fresh fish from the surrounding waters—there are no more famous fishing grounds the wide world over than those of the North Sea. In fact, the quantity of fish landed on these coasts reaches such big dimensions that after the home requirements are fulfilled there is a substantial surplus for export to less favored countries. During 1913—the last complete year for which figures are available, and a better one for our purpose than last year, as conditions were normal—the quantity of fish landed on the coasts of the United Kingdom, totalled 24,056,519 cwts., and of this no less than 10,994,514 cwts. were exported (1,464,296 cwts. fresh and shellfish, and 9,530,218 cwts. cured or salted). Thus with regular adequate supplies of fresh fish there has been no inclination on the part of the trade to make any extended use of cold storage, while the public has shown little or no appreciation of frozen fish while fresh could be obtained.

Shortage and Its Effects.

Now, however, conditions have changed, as have many other circumstances as a result of the war. Landings of fish show a marked shrinkage and are still falling, and prices exhibit a corresponding rise. National requirements have resulted in exceptionally heavy calls on steam trawler owners for the use of their vessels for naval purposes, many trawlers have been lost by mines, submarines, etc., while the areas available for fishing purposes by the remaining boats are strictly limited by the Admiralty. Thus all things considered, the outlook for any increase in the landings of fresh fish is distinctly gloomy.

As this is a fish-eating nation the question at once arises, are there any other countries from which we can draw supplies of fish? Canada, of course, possesses rich fishing grounds on the Pacific coast, and for this great food supply as well as for men and munitions, this country may look to the Dominion for help in the hour of need. It must be remembered that with the impossibility of importing turkeys from Central Europe and the Balkans last Christmas, Canada seized her opportunity, and sent over a consignment of fine birds, the majority of which met an excellent market.

The main consideration is that of prime costs. Freight is dear and difficult to obtain. Another point is whether the fish would be best frozen or chilled; here again the question of expense is an important factor, chilling being the more expensive of the two methods.

The Use of Cold Storage.

Recently fairly large quantities of kippers have been placed in cold store, with success, as much as 1s per box profit being made in some instances. Kippers come out better frozen than chilled. Cured haddocks, too, are often preserved by refrigeration, but, in this case, the fish appear to "sweat" after contact with the outside air again, which rather goes against their sale. This, of course may be connected with the smoking and coloring. Shrimps are frequently placed in cold store, but if kept there for any length of time they become almost unsaleable when thawed out. Various kinds of wet fish are placed in cold store from time to time, but under normal circumstances refrigerated fish cannot compete with freshly landed supplies, the quantity of the latter being quite adequate, with reasonable prices.

Great Untapped Supplies.

It is interesting to note that in the report of the Dominions Royal Commission it is stated that the Newfoundland fishermen scarcely trouble to catch turbot or halibut, for which there is a market in England. During the last year or two, several shipments of "glazed" halibut has been received from British Columbia, and, as far as we can gather, the fish has been sold at prices nearly 50 per cent below those current for halibut from home waters. Of course, with supplies of fresh fish reduced to the minimum, it should be possible to realize rates for frozen fish within 75 per cent at least of the average for fresh fish, providing it were marketed in good condition.

The duty of this article has not been to do more than, so to speak, set up a finger post. It remains for those interested to go more fully into the question, and ascertain ways and means. It may be that war with its waste may teach the lessons of saving which the fish trade, like other industries, can learn from refrigeration.

A New Field for Cold Storage.

Should any quantity of fish be imported into this country a new field of custom will be opened up for the public cold stores of the Kingdom, and as cold storage has an increasing circulation among the different branches of the fishing industry, owners and managers of stores should take advantage of the publicity afforded by the advertisement columns of this review to place before likely customers their facilities for storing fish.

Fisheries at the Canadian National Exhibition, Toronto

Atlantic Sea Fish Exhibit, Canadian National Exhibition, Toronto, 1915.

Lake Fish Exhibit, Canadian National Exhibition, Toronto, 1915.

The Distribution and Economic Importance of the "Inconnu" ---Stenodus Mackenzie---in the Mackenzie River Valley

By J. C. D. MELVILLE, F.R.G.S.
Member of the Canadian Fisheries Advisory Board.

The "Inconnu" or "Connie" (the name by which this fish is more generally known throughout the north) is a large, coarse salmonoid inhabiting, as far as the first rapids, most of the large rivers and streams of Alaska and Arctic Canada from the Yukon to the Anderson river.

This fish is nearly identical with the Russian "Stenodus Leucicthys" found in the Caspian sea and many of the rivers of Russia and Siberia.

The general appearance of the "Inconnu" when freshly caught is somewhat like an Atlantic salmon; the head and mouth being larger, and the scales uniformly, of a bright silver color. The flesh is white, very rich and oily, too rich in fact for a long diet.

It must be admitted that its edible qualities are very much a matter of personal taste—some people liking it, others claiming it be too oily and coarse. Personally, I believe, as in many other kinds of fish, the cooking plays a most important part. However, there certainly can be no disputing the "Inconnu's" great value as dog-feed, or dried and smoked for human consumption.

In weight the "Inconnu" will average 15-20 lbs., but 48 lbs. or even 50 lbs. is by no means uncommon.

"Baik-huli," the name by whcih this fish is known to the Slave and Hare Skin Indians of the Mackenzie river, translated means "No-tooth" which is not quite accurate.

"Stenodus" (literally "Short-toothed") the name of Greek derivation given to this genus by Sir John Richardson better describes their condition.

"Inconnu" is a French word meaning "Unknown" and the name was doubtless bestowed on this fish by the French half-breed "Voyageurs" of the old Northwest or Hudson's Bay Companies when first they penetrated the remote shores of Great Slave lake and vicinity. The fish to them was new and unlike the familiar whitefish or jackfish, or anything of the kind ever seen before.

The "Inconnu" is found on the Slave and Mackenzie rivers below the rapids at Fort Smith, as far as the Arctic ocean. They have never been taken above these rapids. On Great Slave lake they have been found as far east as the Narrows (Sir George Back reported taking one there in 1833). They also ascend most of the rivers flowing in from the north. But, the Riviere de Rochers, Stony Island, Buffalo river and Slave river, all tributaries of Great Slave lake, are the locali-

Cold Storage Show Cases, Canadian National Exhibition, Toronto, 1915.

ties where the "Inconnu" are, at spawning time, probably most plentiful. Sergeant Mellor, R.N.W.M. P., reports "that he was nearly able to walk across Buffalo river on their backs," and the same has been said of Riviere de Rochers (some 50 miles east of Fort Resolution). This latter is a wide shallow stream. In the upper Mackenzie river the "Inconnu" are probably not as plentiful as on Slave river, but some are taken in gill nets every summer at all the trading posts. They do not ascend the Liard or Bear lake rivers (two of the largest tributaries) and they do not occur in Great Bear lake, although Thomas Simpson (Dease and Simpson Expedition 1836) reported that one was caught in a whitefish net near Fort Confidence (situated at the eastern extremity of the lake). In the lower Mackenzie the fish ascend from the Arctic ocean in great quantities as far as the Swift river (known as the Sans Sault rapids) above Fort Good Hope.

The Indians establish fisheries below these rapids every year. The fish leave the delta of the Mackenzie river and Great Slave lake (at both of which places they undoubtedly winter) about June and begin to return in October. They also ascend Peel's river and many natives inhabiting that section of country depend very largely on them for their food supply. Concerning other tributaries of the Mackenzie river, I regret I have no data, and can, therefore, give no information.

The "Inconnu" spawns at Smith from about the middle of September to the beginning of October, and it is at this time that the trading companies and others establish fisheries, for they are to be found in the eddies below the Smith rapids in great quantities. The fish are generally split and hung on a stage out of reach of the dogs. On account of the large size of the "Inconnu" it is not necessary to "put up" the great quantity that a whitefish fishery necessitates,—one good-sized fish being nearly a days ration for a team of dogs. The price asked by the Indian and half-breed fishermen at Fort Smith is or was twenty-five cents a piece (for a fair-sized fish) they are usually caught in gill nets (5½-inch mesh) set in the eddies of the rivers, but they also readily take a spoon or bait, the latter being a piece of fresh meat or fish. The Eskimo at the mouth of the Mackenzie river catch them through the ice by means of a hook and line baited with a thin strip of bone or ivory.

The "Inconnu" is a fish of no great vitality; it being generally found dead in nets, as compared to the whitefish or trout which caught at the same cast are still full of life. This apparent lack of vitality or sluggishness may possibly account for this species, although predominating in great numbers in the districts to which it is native, being very noticeably stopped by rapids or swift water occurring in the streams which they frequent.

The first mention we have of the "Inconnu" is to be found in Samuel Hearn's account of his journey from Fort Prince of Wales (Churchill) to the Coppermine river. He records taking one of the fish in Great Slave lake in 1772. After mentioning all the other well known varieties, he writes, "Besides these we caught also another kind of fish which is said by the Northern Indians to be peculiar to this lake; at least none of the kind have ever been met with in any other. The body of the fish much resembles a pike in shape, but the scales, which are very large and stiff, are of a beautiful bright silver color; its mouth is large, although not provided with any teeth, and take a bait as ravenously as a pike or trout. The sizes we caught were from two feet to four feet long."

Sir Alexander Mackenzie in the account of his journey of 1789 down the great river which bears his name, mentions the "Inconnu," but gives no description. The fish was definitely described by Sir John Richardson after his first journey as naturalist and surgeon to the Franklin Expedition.

Little or nothing is known concerning the food of the "Inconnu," it being probably small aquatic animaculae or small fish such as minnows. An Indian told me it is also a great scavenger, devouring the carrion carried down by all rivers in a greater or less degree, but this statement needs corroboration.

It will be readily understood that the "Inconnu" may be of vast importance and value if the Arctic and Sub-Arctic districts of the Mackenzie valley develop in the future, as is fully expected.

It is definitely known that these fish retire back from their summer haunts and spawning grounds in the rivers to Great Slave lake, the Mackenzie river delta and bays of the Arctic ocean. The sixteen miles of rapids at Fort Smith are the only impediment to them proceeding up stream to Lake Athabasca, Peave river, etc. Lake Athabasca and the delta of the Athabasca river are exactly similar to Great Slave lake and the delta of the Slave river, in which waters the "Inconnu" now flourish. This leads to the following reflection which, while of no great economic importance at present, might perhaps in the future be worthy of consideration, and at any rate is, I venture to believe, of interest.

It would be an interesting experiment to transfer some of these fish over the "rapids"—or otherwise stock the Upper Slave river. Peace river is not very plentifully endowed with fish life, and if it were possible to introduce the "Inconnu" it would confer a great boon on the inhabitants of this at present sparsely populated country. In the years to come the value of a great fishery in the heart of what is destined to be one of the finest farming districts in Canada can scarcely be estimated.

Little is known of the habits or life of the "Inconnu" and that little is, I believe, all expressed in the foregoing notes. I have not the fatuity to pretend these to be a scientific or even a full practical report—but perhaps some attention may be drawn towards a fish which in the future may be of great value and importance, but which is now indeed well named "Inconnu."

KNOCKED ITS HORNS OFF.

Panic seized skippers in Harwich harbour recently when an old Dover fisherman hove to towing a big floating German mine, loaded with enough explosive to destroy a battleship.

"Hit's all right, guvnor," the old fisherman yelled when the officer of a mine-layer in the harbour hent a volley of excited curses in his direction. "I've knocked 'er 'orns off with a boat 'ook."

" 'Er 'orns," the old fisherman was startled to learn, were the projections on the German mines which, when struck, explode the contents of the cylinder. Why the mine failed to explode is a mystery.

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WHOLESALE PRODUCER OF SMOKED FISH

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BUYS

CISCOES; CHUBS; TULIBEES; BLUEFINS; white STURGEON; frozen as well as salted round HERRINGS. Red and fat, Pacific Coast mild cured SALMON.

I pay market prices for all varieties of prime, fresh or frozen fish, suitable for smoking. Remittances upon safe and satisfactory arrival. Authentic reference. Communicate with me.

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FRESH, FROZEN AND SMOKED FISH

Irving M. Atwood, Sec'y and Mgr.

WACHUSETT BRAND FINNAN HADDIE

ALL VARIETIES OF THE SEASON

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THE CANADIAN FISHERMAN

THE MAGAZINE OF CANADA'S
:: COMMERCIAL FISHERIES ::

$1.00 Per Annum Canada and Great Britain. $1.50 United States and Elsewhere

Send Your Subscription in NOW

WHY NOT FISH, TOO?

The idea of the Government to stimulate the use of apples by newspaper advertising a year ago was a novel departure in the promotion of the agricultural industry.

The advertising resulted in an immediate and widespread demand from the people for more apples. Those who had been in the habit of buying them by the dozen, bought them by the peck. Those who bought pecks began to buy barrels. Retailers stocked up to satisfy the demands of their customers. Wholesalers laid in unusually large stocks and the growers responded at once to the market thus created by picking and shipping their fruit.

The fishing industry, particularly on the Atlantic Coast, presents a problem similar to that of the apple situation a year ago, with this difference—the apple situation was ephemeral but the fish situation is permanent. Canadian fishermen are not now taking from the sea anything like the quantities of sea fish easily available and the people of inland Canada are not consuming anything like the quantities of sea fish they would consume if they were more familiar with the nourishing qualities and the palatableness of a sea food diet. Thus a portion of our great natural wealth goes to waste.

The fisherman and the consumer are affected by the same causes, but each in opposite ways. The fisherman gets low prices and little market; the consumer pays high prices and gets little good fish.

The reason for the fisherman's poor market and low prices is the lack of transportation facilities. These facilities can be supplied only by increasing the demand for fish. If an increased demand is created, the consumer will not only only get more fish, he will get better fish.

Along the New Brunswick coast, where catches of sea fish are often prodigious, cod sells for two cents a pound on the dock. The same fish in Ottawa—brought here fresh—would be cheap at 20 cents. Mackerel are sold at an average price of about 4½c a pound. In Ottawa they are worth from 25 to 30 cents. Herring are taken by cartloads from shallow waters in spring and put on the land as fertilizer. Very little deep sea herring fishing is done at the time when the fish are at their best. "Gaspe" salmon—caught in traps leased by the Government of Canada—sell to local consumers at 13 cents a pound. They are shipped wholesale to Boston at eight cents a pound.

The growth of the industry depends primarily on the consumer. He must be educated to the use of more fish. He must be shown that fish is an all the week diet. He must be awakened on fish, just as he was awakened on apples.

A steady demand having been aroused, the furnishing of regular and quick transportation is only a matter of detail, and the supply of fish at the ports would almost automatically respond. The fisherman would catch more fish. He would get more money per pound for them. They would cost the consumer less per pound than now because transportation would be better and trading profits less. This has been proven in the United States where the experiment has been tried.

Sir George Foster and the Hon. Martin Burrel solved the apple problem last fall by creating a great consumer demand for apples through newspaper advertising. Sir George Foster and the Hon. J. D. Hazen could greatly improve the lot of the Atlantic fishermen, and supply the people of inland Canada with a great deal more of the nourishing and palatable products of the sea if they would tickle the appetites of the people of these inland towns and cities with some newspaper advertisements on the cod, the mackerel and the herring of Nova Scotia and New Brunswick.—Ottawa Free Press.

GEO. L. CLAYTON
CONSULTING ENGINEER
PLANS AND SPECIFICATIONS FURNISHED FOR ICEMAKING, FISH FREEZING, AND COLD STORAGE PLANTS
VICTORIA and PRINCE RUPERT, B.C.

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DORE
JACKFISH
TULLIBEES
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We are established for handling orders in carload lots. Shipment right from the Lakes. ¶We specialize in Lake Winnipeg fish, the finest Lake fish in the world.
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ESTABLISHED 1890
The W. J. Guest Fish Co. Limited
WINNIPEG, MAN.

J. Bowman & Co.
TROUT, WHITEFISH, JUMBO WHITE, YELLOW PIKE, JACKS, FRESH HERRING, SALTED HERRING, FRONTAL CUT OR FLATS.
WE ARE BOOKING ORDERS NOW FOR CAR LOTS.
FROZEN HERRING, 100 LBS. IN SACK, 240 SACKS TO CAR FOR NOVEMBER AND DECEMBER DELIVERY.
WRITE US FOR PRICES.
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" " SMOKED BLACK COD
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Frozen Salmon, Halibut and Black Cod. Fresh Salmon, Halibut, and other fish. Pickled Salmon, Herring and Black Cod ; Alaska Codfish and all other Pacific Fish in Carlots only.

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DO NOT TAKE CHANCES!
DEAL WITH THE BIG HOUSE

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Nowhere outside of the City of Halifax can a better line of Fishing Supplies be found than we carry in stock. Some of our Specialties are :—

Trawl Kegs, Cotton Lines, Arthur James Fish Hooks, American Standard Nets, Plymouth Manilla Rope, Caller Herrin, Cutch, Miller's Extract Hemlock, Cape Ann Fishing Anchors, Fish Barrels, Bulk Salt, Bag Salt, Dories, etc., etc.

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CANSO, NOVA SCOTIA

ESTABLISHED 1874

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Largest Receivers and Distributors of all kinds of FISH in the Dominion

Experts in the handling of BULK and SHELL OYSTERS

Ask for our Niobe Brand of Haddies, Kippers and Bloaters, and Sardines in the purest of Olive Oil. Also our Ivory Brand of Pure Boneless Codfish in 2″ blocks, 20lb. boxes

Everywhere in Canada

CURED AND PACKED ONLY BY

GATEWAY FISH CO. LIMITED

YARMOUTH, N.S.

ask for

Grade 'A' Boneout Finnan Haddies
Gateway Brand Boneless Fish
Gateway Brand Threaded Fish
Gateway Brand Pickled Cod
Mayflower Brand Threaded Fish

"GATEWAY" Brands of Fish

TO THE FISH TRADE:--

LET US DO YOUR PRINTING.
PRICE LISTS; TRADE BULLETINS,
PAMPHLETS, BILL HEADS, LETTER HEADS,
ENVELOPES, CARDS, ETC.

Our staff is experienced in the technical work called for in the Fishing Industry.

INDUSTRIAL & EDUCATIONAL PRESS, LTD.

45 ST. ALEXANDER ST., MONTREAL, Que.

(PUBLISHERS OF THE CANADIAN FISHERMAN)

Vol. II. MONTREAL, OCTOBER, 1915 No.

CANADIAN FISHERMAN

THE MAGAZINE OF CANADA'S COMMERCIAL FISHERIES

Official Organ of the Canadian Fisheries Association

Producers and Distributors
of Atlantic Ocean - -

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Our Specialties: Finnan Haddies, Fillets, Bloaters, Kippers
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Exceptional Angling Opportunities

are offered by the Province of Quebec, which is the only one that leases exclusive hunting and fishing territories over large areas of forest, lakes and rivers, both to Clubs and private individuals, with the privilege of erecting camps thereon.

Membership may be obtained, if desired, in many existing clubs, with camp privileges already provided, and often with the right of erecting private summer homes on suitable sites on the club territory.

On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license

To The Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

For all Information apply to--

THE MINISTER OF COLONIZATION,
MINES AND FISHERIES OF THE PROVINCE OF QUEBEC

Department of the Naval Service
Fisheries Branch

LOBSTER FISHERY FISHING SEASONS
IN FORCE ON DECEMBER 1st, 1913

Number of District	LIMITS	Fishing Season	Size
1	St. John and Charlotte Counties, N.B.	Nov. 15 to June 15	4½" carapace
2	Albert County, N.B. and Kings and Annapolis Counties, N.S.	Jan. 15 to June 29	No size limit.
3	Digby County	Jan. 6 to June 15	No size limit.
4	Yarmouth, Shelburne, Queens, Lunenburg, and that portion of Halifax County West of a line running S.S.E. from St. George's Island, Halifax Harbour, and coinciding with Fairway buoys.	Dec. 15 to May 30	No size limit.
5	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys, eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite.	April 1 to June 30	No size limit.
6	From Red Point, between Martin Point and Point Michaud, along the eastern coast on Cape Breton Island, around Cape North as far as Cape St. Lawrence; also the north shore of the Gulf of St. Lawrence from and including Blanc Sablon, westwardly to the head of tide, embracing the shores of the adjacent islands, including Anticosti Island.	May 1st to July 31	No size limit.
7	The Magdalen Islands, including Bird Rocks and Bryon Island.	May 1st to July 20	No size limit.
8	Waters of Northumberland Strait, between a line on the N. W. drawn from Chockfish River, N.B., to West Pt., P.E.I., and a line on the S.E. drawn from Indian Point, near Cape Tormentine, N.B., to Cape Traverse, P.E.I.	May 25 to Aug. 10	No size limit.
9	The waters around P. E. Island except those specified in No. 8.	April 26 to July 10	No size limit.
10	From, but not including, Cape St. Lawrence, Cape Breton Islands, south-westwardly to Flat Point, Inverness County, and from the Lighthouse in Antigonish County opposite Flat Point, westwardly along the strait of Northumberland and coast of Nova Scotia to Indian Point, near Cape Tormentine, N.B., and northwardly from Chockfish River, N.B., embracing the coast and waters of a portion of Kent County and of Northumberland, Gloucester, Restigouche Counties, N.B., and the coast and waters thereof of the Counties of Quebec, south of the St. Lawrence River.	April 20 to July 10	No size limit.

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of The Naval Service is required.

Canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery, and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA, THE SCIENCE OF THE FISH CULTURE AND THE USE AND - VALUE OF FISH PRODUCTS -

F. WILLIAM WALLACE
EDITOR

The Industrial & Educational Press, Limited
35-45 St. Alexander St. - Montreal
CANADA
Toronto Office - 44-46 Lombard St.

SUBSCRIPTION:
Canada and Great Britain $1.00
United States and Elsewhere.. $1.50
payable in advance.

ADVERTISING RATES ON APPLICATION

Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest. If suitable for publication these will be paid for at our regular rates.

Official Organ of the Canadian Fisheries Association

Vol. II. MONTREAL, OCTOBER, 1915 No. 10

FISHERIES AT THE TORONTO EXHIBITION.

The 1915 exhibit of Canada's fisheries at the Canadian National Exhibition was the best ever shown. The firms exhibiting, excelled themselves in the make-up of their stands, and the samples of Canadian fresh, frozen, cured and prepared fish included everything from the Atlantic, the Great Lakes and the Pacific.

The best feature, from a fish man's point of view, was the Fish Restaurant in the Exhibition grounds. This was managed under the auspices of the Naval Service Department, and in our opinion, has done more to advertise fish as a food than anything previously undertaken by the Government in that line.

The restaurant had seating accommodation for two or three hundred persons, and an excellent meal composed of various kinds of Canadian fish, tastefully cooked and served, was given for 25 cents. The popularity of the restaurant may be judged, when in one day alone, over 5,000 meals were served.

A specially designed Menu Card, giving pertinent facts relating to fish as a food, was printed daily, and we give herewith a sample of one of the meals served.

Broiled Atlantic Kippered Herring
or
Fried Sole with Tartar Sauce
or
Boiled Haddock with Egg Sauce
or
British Columbia Red Spring Salmon Cutlets With Cream Sauce.

Boiled, Mashed or Fried Potatoes.

Choice of Fruit Pie.

Tea, Coffee or Milk.

The portions served were sufficient to provide a hearty meal, and the menu was changed daily—all varieties of Canada's food fish being featured.

As the guests left the restaurant, they were supplied with a copy of the Departmental Cook Book—"Fish, and How to Cook It"—and it is safe to say that most of the people who partook of a fish dinner at the Exhibition, will be converts to the eating of fish foods.

ALASKA SALMON FOR CANADIAN SOLDIERS.

Our own province of British Columbia produces over $10,000,000 worth of salmon yearly. Of this amount, over $7,000,000 represent salmon packed in cans. The British Government knows all about B. C. salmon—or ought to know, as it accepted a shipment of 23,000 cases presented free by the Province to the Imperial Government last winter.

A Vancouver correspondent sends us a letter, written by one of the Canadian Expeditionary Force at Ross Barracks, Shorncliffe, England. This gentleman was formerly in charge of the Fish Department of one of Vancouver's department stores before enlisting, and therefore knows something about fish.

In his letter, which is reproduced in our Pacific correspondence, he states that they received two ra-

tions of canned salmon for breakfast in eight days. The salmon was very pale in colour, and looked to the writer like Humpback or Dog, so, the fish trade instinct being strongly developed in our correspondent, he hunted around until he found the can in which the salmon was packed.

Instead of seeing a familiar B. C. brand on the can, he found it labelled "Fancy Alaska Red Salmon," packed by an American concern in Bristol Bay, Alaska, and sold through the San Francisco market.

We do not deplore the business acumen of the American packer who managed to unload this stuff on to the British Government for soldiers' rations. It was a mighty good stroke of business for him, but an unpatriotic piece of work on the part of the Imperial Government Department entrusted with the purchase of supplies for the troops, when one considers what the B. C. fish men and the Province have contributed in the shape of salmon, guns, and men.

We are informed that the B. C. salmon packers have left no stone unturned to have Canadian packed fish served to the English and Canadian troops. It seems, however, that the British Army and Navy Ration List specifies "Alaska Red" salmon, and with characteristic conservatism, the British commissariat buyers eliminate British Columbian goods. Efforts have been made to change this state of affairs, but with no avail, and the American packer can "horn in" and sell his goods, while a better article produced "under the Flag" looks for a market elsewhere.

The soldier's letter, with the label attached, was referred to the CANADIAN FISHERIES ASSOCIATION, and forwarded to the Department of the Naval Service. The Association has since received an assurance from the Hon. J. D. Hazen that the matter will be taken up with the British authorities.

CANADA'S FISHERIES NEED ADVERTISING.

Elsewhere on the Editorial pages of this issue, we highly commend the good advertising work done by the Department of the Naval Service Fisheries Branch, at the Toronto Exhibition. The Fish Restaurant is a splendid scheme, and will undoubtedly be the means of bringing many permanent customers to the Fish Trade. The only drawback to the Toronto Exhibition fish publicity, is that the effect will be only a local one. Toronto and its immediate vicinity will learn of the value of fish as a food, but the other possible consuming centers will be none the wiser.

The Fisheries constitute one of the most important industries of the country, and the Fishery resources of Canada are unequalled anywhere in the world, but we have to depend largely on an export market for getting rid of our catch. The amount of fish consumed in Canada is hardly worth mentioning, and is, indeed, nothing to brag about.

Other natural resources in the Dominion have been greatly assisted by means of Government advertising campaigns, but if any particular resource and industry needs advertising, it is our Fisheries.

When a glut of apples threatened to ruin the apple growers of Canada last year, the Government stepped in and advertised the food value of apples until the whole pack was sold at remunerative prices. Not only did this publicity benefit the apple men, but it helped the consumer as well, by bringing to his notice a palatable fruit which could be utilized in a dozen different ways as an economical food. One of the results of the campaign is that the now universal "Baked Apple" replaces grapefruit or oranges as a breakfast fruit. At the present time, an extensive advertising campaign is being conducted by the Department of Agriculture in favour of Canadian peaches and plums.

Canada owes its existence to the Fisheries. It was the fishermen pioneers who first settled this country, and for over three hundred years the Fisheries have been one of the most important industries of the Dominion. At the present time, about 100,000 persons are employed, directly or indirectly, in the Fishing Industry. With a larger home market and careful attention to the building up of new export markets, there is absolutely no reason why double that number should not make a living out of the Fisheries alone.

The home market needs attention FIRST. The vast majority of the people of Canada know very little about fish as a food, and require to be educated. The educating must be done through the newspapers and magazines which reach the home and the housewife; by practical demonstrations in fish cookery at Exhibitions, Fairs, Domestic Science classes, Housewives' Leagues, etc.; by the wholesale distribution of pamphlets and cook-books to the public through the medium of the retailers and grocers.

Once a demand is stimulated, the other problems of transportation and supply will be easily adjusted. The fish can be got, and with increasing orders from inland centers, the railroads will take care of what will be a lucrative haul for them.

There is one thing to be remembered in connection with advertising fish. Once the demand is created, it will remain for all time and will not be a mere "flash in the pan." The people who learned of the good qualities and the economy of fish at the Toronto Exhibition are now permanent consumers. Was it worth the money expended? There is not the least doubt of it.

We might write in this strain for ever and produce absolutely no effect. Industries are popularly supposed to be looking for grants and subsidies all the time but there is no Industry where less has been spent for advertising and developing a home market than that of the Fisheries.

Of course, this is War Time, and we will be told to go easy in our demands for advertising appropriations from the Government, but this War Time, owing to the forced economies now the order of the day, is the psychological moment to impress upon the

people the advantages of Canadian fish as an economical and healthful diet.

At the Executive Meeting of the Canadian Fisheries Association held in Toronto on September 3rd, this question was discussed in all its phases and it was unanimously resolved by the meeting that the Association make an effort to have Canadian fish made the subject of a special Government advertising campaign along the lines of similar publicity propagandas in favour of apples and other productions. To this end, we would urge all those engaged in the Fishing Industry and Trade of this country to assist the Association in procuring the necessary appropriation for the work by petitioning the Department of Naval Service or by writing the Association endorsing the resolution and suggesting ways and means for developing a larger market for fish foods here in our own Dominion.

EDUCATE THE WOMEN!

In the bad old days, before the French Revolution, when intrigues and plots were the social amusements, much as Red Cross work and bridge parties are today, they had a saying, when a plot or mystery was to be unravelled: "Cherchez la femme." Otherwise, "Find the woman!"

Back in those times, women made kings, and held the destinies of nations in their fair hands. Coming along to modern times, and such a prosaic industry as the fish business, we can say the same. Yes! it may sound strange, but nevertheless, the whole future of the fish trade of Canada is in the hands of the women.

The wife is the Dictator of the Kitchen. It is she who decrees what Hubby shall eat, and what Hubby eats, so shall Sonny and Sis and other members of the household. Fish is a food, and as a food it comes to the table via the housewife.

The average housewife knows very, very little about fish. She buys salmon, lobsters and shrimps—in cans, and knows how to make the most delicious salads out of them. She may even know the delights of a Finnan Haddie and maybe a smoked or kippered herring, but beyond that, anything in the nature of fish is a mystery—an experiment, which may, or may not, turn out all right.

Occasionally she gets an insight into other kinds of fish when Hubby goes off on a week-end fishing trip and returns with a basket of trout, perch, whitefish, etc. As a rule, these captures are slapped into a frying pan and simply fried. When in doubt—fry! That is her motto.

In her daily round of shopping, the average Canadian housewife buys very little fish. All fish look alike to her, and in her imagination must necessarily taste alike. Salmon, cod, haddock, and halibut are her commonest choices in fresh fish, and as a rule these are either fried or boiled and probably garnished with a plain egg sauce. With such a limited viewpoint and such a restricted knowledge in fish cookery, how can the Fish Trade of Canada prosper?

The whole Fish Business of Canada and the Department of Naval Service of Canada, if they wish to develop a larger home market for our own food fish, have only one motto to blazon on their campaign flag, and that is "Educate the women.' Teach them that there are at least twenty-four different ways in which ordinary codfish can be prepared; at least fifteen methods of cooking halibut; twelve recipes for preparing mackerel, and as many for the dozens of other varieties they hardly ever heard of—shad, smelts, haddock, pollock, trout, whitefish, salmon, pickerel, pike, blue fish, swordfish, tuna, hake, cusk, flounder, herring, gold-eyes, carp, sole, skate, perch, bass, sturgeon, etc., etc.

There are only a few varieties of meats in general use—beef, mutton, pork, lamb and veal—five altogether. Of fish, there are at least twenty—and all different, and half the cost of meat. Why hasn't fish become more popular? Simply because the housewife knows very little about it, and does not know how to cook it.

Every retail fish store in the country should pro cure copies of the Government publication "Fish, and How to Cook It," and distribute it to the housewives who shop there. A million copies of the booklet distributed in this way would bring results, and lasting results. A well designed set of posters hung up in the store would call attention to certain varieties of fish in season and catch the housewife's eye—stimulating curiosity and a probable desire to purchase.

Practical demonstrations in fish cookery at Food Fairs will help greatly, and a series of well-written articles on fish as food, with recipes, should be run in newspapers throughout the country under the heading of "War Time Economies for the Table," or some such title. There are a hundred ways of reaching the housewife and preaching the Gospel of Fish, but until something of the nature we have suggested is done, the fish trade will have but a tardy and local growth.

Such a campaign will cost money, and would have to be undertaken by the Government, through the Fisheries Department. The question is a national one, and is not for the benefit of the retailers alone, but rather for the many thousands who are employed in the fisheries from coast to coast. It will also be the means of giving an impetus to one of the Dominion's natural resources which is simply awaiting development.

Any publicity work undertaken along these lines by the Naval Service Department will be assisted by the Canadian Fisheries Association and this journal. "'Educating the women" remains the big task of the fish trade of the Dominion, and the sooner we get at it, the better.

EXECUTIVE MEETING CANADIAN FISHERIES ASSOCIATION.

An Executive meeting of the Canadian Fisheries Association was held on "'Fisheries Day" (Sept. 3), at the Canadian National Exhibition, Toronto. The members who attended were the guests of the Exhibition Directors at a luncheon, with the Hon. J. D. Hazen, Minister of the Naval Service, Mr. G. J. Desbarats, Deputy Minister, and Mr. W. A. Found, Superintendent of Fisheries.

At the Executive meeting a vote of thanks was extended to the Exhibition authorities for devoting a day to the Fisheries. Applications for membership to the Assocation were read out and the applicants accepted. A suitable certificate of membership will be secured and forwarded to members.

Three important questions, viz: "Fish for Foreign Markets," "Government Advertising of Fish as a Food," and "Fish for Soldiers in Concentration and Training Camps," occupied the attention of the members. President Byrne outlined what the Association had done in regard to these matters, and resolutions for future policies were passed.

Though in existence less than a year, the President remarked that the Association was already fully recognized as the representative organization of the fishing industry and fish trade of Canada. The membership included all the important firms doing business in the industry, and the pioneer work of the Association had already brought good results. Owing to the scattered nature of the business, work was necessarily slow, but the organization was fulfilling its objects, and is destined to become of great assistance to the fishing interests of Canada.

The Committee inspected the Fisheries Exhibit, and were entertained to dinner at the Government Fish Restaurant.

NOVA SCOTIA BRANCH, CANADIAN FISHERIES ASSOCIATION.

Just as we go to press, we have received advice that a meeting of the Nova Scotia Branch of the Canadian Fisheries Association was held in Lunenburg, N.S., on Wednesday, September 22. President W. M. Hodge, of Lockeport, presided, and there was a large attendance—especially among the local fish men of Lunenburg. The meeting was of an educational and missionary nature, and several interesting discussions were held upon the questions of standardized packing and curing of fish, also transportation and inspection.

At the close of the session, an important resolution was passed requesting a Government grant for the purpose of educational work in connection with the Fisheries of the Province. Transportation problems under discussion have been referred to the Executive Committee of the Association.

The annual meeting of the branch will be held on the fourth Wednesday in January.

PISCATORIAL PARAGRAPHS.

Montreal has recently lost one of its oldest retail fish merchants in the person of Mr. Henry Gatehouse. Mr. Gatehouse started business in a small way, and when he retired some years ago, he had built up one of the largest retail fish and poultry trades in the city. Mr. J. Edgar Gatehouse will carry on the business under the old name.

The London (Eng.) Daily Mirror publishes the following: (Censored for the benefit of Canadian readers). "I don't like the oil you cook your fish with," complained the epicurean customer in an English fried fish shop. "It ain't the oil we use," replied the diplomatic salesman. "It's the gasolene from them sunken U boats wot flavors the fish these days!"

Mr. H. C. Walby, of the Canadian Fish & Cold Storage Coy., Prince Rupert, B.C., was in Montreal recently, also Mr. Hugh A. Green, of Saskatoon, Sask. Mr. Walby is in the East in the interests of Pacific Halibut, while Mr. Green is busy leaving a trail of Northern Lake Whitefish in the retail stores of the towns he visits. Mr. H. A. Rice, of Canso, N. S., passed through the city, after a visit to the Fish Exhibit at the Toronto Exhibition.

Mr. D. J. Byrne, President of the Canadian Fisheries Association, has been invited to address the Commission of Conservation on economic problems connected with the Canadian fish trade.

In addition to the fast refrigerator freight service on the I. C. R., which leaves Mulgrave, N.S., on Mondays, Thursdays and Saturdays, a new service has been arranged for by the C. P. R. In future, a cold storage freight car will leave St. John, N.B., for Montreal on Tuesday of each week. While there are services from Mulgrave covering the Northern part of Nova Scotia, and from St. John covering Southern Nova Scotia and New Brunswick, it seems strange that there is no cold storage freight service from Halifax.

In a letter to the Editor, which is published on another page, Mr. W. Douglas, of the Guest Fish Company, Ltd., Winnipeg, evidently means to "start something." We shall be glad to print the views of other correspondents on the subject.

The speech of the Hon. J. D. Hazen at the Directors' Luncheon, on Fisheries Day, Canadian National Exhibition, which is published in this issue, so impressed the members of the Executive Committee of the Canadian Fisheries Association that a resolution was passed requesting the Minister to allow the address to be printed for wholesale distribution. We have been advised by the Department of the Naval Service that this will be done at an early date.

Lieut. J. W. Nicholls, Comptroller of the Canadian Fish and Cold Storage Co., Ltd., Prince Rupert, B.C., was called to military duty on September 2nd. Previous to his departure, the office staff and heads of departments gave a banquet in his honor, when he was presented with a set of field glasses suitably engraved. The plate was in the form of a fish, upon which was engraved, the following:

"Presented to Lieut. J. W. Nicholls, from the staff of the C. F. & C. S. Co., Ltd., Prince Rupert, B.C., on his departure for active service, Sept. 2nd, 1915."

The engine room staff presented him with a wrist watch for use while on active service.

Mr. Nicholls was very popular, indeed, among all departments of the company, and all wish him every success, as well as a safe return at the end of the war.

The severe gale and windy weather which prevailed in Eastern Canada during the latter part of September caused a great amount of damage to fishing craft and gear on the Atlantic Coast. In the Bay of Fundy, several wires were carried away, and at other places, small fishing boats were driven ashore. The rough weather caused a scarcity in several lines of fresh fish.

The United States Revenue cutter "Androscoggin" will continue her previous good work as a hospital ship for offshore fishermen. She is at present being overhauled at Baltimore, and will be commanded by Captain C. Satterlee, Captain Hall having retired.

The Gloucester halibuters "Teaser" and "Robert and Richard" are rivals for high-line honours. Capt. Peter Dunsky, in the "Teaser," is a few hundred dollars ahead of Captain Bob Wharton, but the "Robert and Richard's" next trip may haul him ahead. Both craft have stocked over $24,000 since the New Year.

The Gloucester schooner "A. Piatt Andrew," Captain Wallace Bruce, has just completed a banner year, stocking $48,669 from September, 1914, to September, 1915. The stock was made up by fresh fish fares—winter haddocking and summer shacking. The amount landed was around 1,500,000 lbs. altogether, and the crew shared $880 for the year.

A monster salt codfish fare was freighted down from Grand River, Gaspe Coast of Quebec by the Gloucester schooner "Annie M. Parker" recently. The shipment amounted to 444,000 pounds, and was bought by the Gorton-Pew Fisheries Co., of Gloucester.

A booklet entitled "Investigations into the Natural History of the Herring in the Atlantic Waters of Canada" has just been issued by the Naval Service Department. The pamphlet forms the first preliminary report of Dr. Johan Hjort—the Norwegian expert, who has been investigating the subject of the Canadian herring during the summer.

1915 **OCTOBER FISH DAY CALENDAR** 1915

Sun.	*Mon.*	*Tues.*	*Wed.*	*Thur.*	*Fri.*	*Sat.*
-	-	-	-	-	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24-31	25	26	27	28	29	30

October 30th Day of Abstinence

Canada's Fisheries --- Past, Present and Future

By the Hon. J. D. Hazen, K. C., LL.D., M.P.
Minister of the Naval Service.

Address delivered at the luncheon of the Directors of the Toronto Exhibition Association on "Fisheries Day," Sept. 3, 1915.

Mr. President and Gentlemen:

I congratulate you upon the success of the Toronto Exhibition, an event which has come to be regarded with greater interest from year to year, and in spite of the upheaval caused by the greatest war of all ages, I am glad to find that you are still doing business at the old stand, "as usual,"—only more so.

It is peculiarly gratifying at the present time to know that business conditions in Canada, as compared with those in nearly all other countries in the world, are in a satisfactory condition. In conversation with gentlemen prominent in the business world of Ontario, here to-day, I have been informed that there has been a marked improvement during the past three months, and that there is no cause for despondency or even for alarm so far as business conditions in the Province of Ontario are concerned.

Speaking of that portion of the Dominion with which I am most familiar, I may say that in the Province of New Brunswick, and the Maritime Provinces generally, conditions since the outbreak of the war have been practically normal. Never in the history of our Province was so high a price paid for the deals which are annually shipped from New Brunswick to the English markets and which make up one of our staple industries. Our farmers have received good prices for their products, and this year will be blessed with bountiful harvests, and the same is true of our fisheries on nearly all parts of the Atlantic coast. On the other hand, in our Western Provinces there is now being garnered the greatest grain crop in Canada's history. When I was down in Gaspe the other day, investigating fishing conditions at first hand, I was informed that the catch of cod fish during the present year was unprecedented, and some of the fishermen attributed this to the disturbance caused by the submarines in the North Sea. I give you this reason for such consideration as you think it is worth, saying at the same time, it is probably as good as reasons given by men of more scientific training from time to time with respect to the changed conditions that take place in the number of fish that seek our shores from year to year.

Three years ago the Department of which I am the head determined to make an exhibition of the fishery wealth of Canada at this Exhibition, for the purpose of demonstrating to those from the inland part of the Dominion, who in tens of thousands come to visit you, the possibilities possessed by the Canadian fisheries and the advantages which are offered by the use of fish as a food. So successful was the exhibition in 1913 that we repeated it again last year, and on both occasions the Directors were pleased to award us a gold medal. This year we decided to carry the matter still further and established on the grounds a restaurant, at which a substantial fish dinner can be obtained for the sum of 25 cents. During the few days that the Fair has been open, the success of this restaurant has been fully established. Yesterday about 1,600 meals were served at it, and when I visited it a short time ago it was crowded with people. The fish served are from the Atlantic and the Pacific and Great Lakes, and I hope and believe that the result of this object lesson will be to largely increase the sale of fish in Ontario and the interior of Canada. (It is understood that on the day following the speech over 5,000 fish dinners were served in the restaurant).

I might say that the members of the Executive of the Canadian Fisheries Association, which meet here to-day, are delighted with its success, and men engaged in the fishing trade in your city have informed me this morning that their business has been very largely increased as a result of the exhibition made during the past two years.

I have not come here, however, for the purpose of making a general speech, but of dealing particularly with the question of the extension and growth of the fisheries. I must, therefore, come down to my text at once.

History.

The history of the Canadian Fisheries is full of interest and adventure. Indeed, in it, is, in a large measure, bound up the early history of the northern portion of this continent.

Fishing may properly be classed amongst the ancient and honorable callings. It was a comparatively old means of earning a livelihood in the days of our Saviour, and it was from amongst the fishermen that He drew His most illustrious Disciples. At that time the gill-net and drag-seine were used in a considerable way to supply fish to the inhabitants of the towns and cities of the Holy Land, lying around and in the vicinity of the lakes.

There seems to be no record of when nets were first used, and there may be something in the opinion that it was the spider's web that first suggested to reasoning man the idea of capturing fish in a similar contrivance.

No doubt the earliest fishing ventures were confined to the lakes and rivers, and it was only as the demand for fish increased and the supplies in these waters were not adequate to meet the need, that fishermen began to venture forth to sea.

In the early days, owing to lack of proper transportation facilities, it was impossible to supply fresh fish to markets at any considerable distance from the coasts. Hence the necessity for curing arose.

The fact that codfish dried in the sun and air, makes a palatable and nourishing food that can be sent any distance from the sea-coast, was early learned, and almost immediately following the acquiring of this knowledge, boats began to venture farther seaward in search of fish.

As early as the 12th Century, the hardy Basque (from the Bay of Biscay), and Norse fishermen, were faring north in their small unwieldy boats as far as

Iceland, and it is claimed by some historians that even before the discovery of this continent by Columbus, these fishermen had visited the coasts of what are now known as Newfoundland and the Gulf of St. Lawrence, and English fishermen soon followed their lead. In any event, in the 14th Century, English fishermen had come as far westward as Iceland, and following the discovery of the North America coast by the Cabots, they, almost immediately, extended their operations to the shores of what are known as Newfoundland, the Maritime Provinces and the State of Maine. In these early days, foreigners called these Countries by the generic name "Baccalaos", — the land of dried codfish.

Indeed, it may be said that the first and chief result of the discovery of North America, was the immediate establishment of a great fishery.

In all ages of the World, the fishery has been the mother of commerce and the parent of navigation, and it was the cod fishery, first pursued at Iceland and later on the coasts of North America, that made English sailors, and that made Britain a great maritime power. DeWitt says that, "The navy of England became formidable by the discovery of the inexhaustible rich fishing banks of Newfoundland."

Extent and Value of the Fisheries.

Canada is blessed with an inexhaustible fish supply. Indeed, our fisheries are the most extensive in the world. In addition to such famous fishing banks as the Roseway, Lahave, Banquero, Misaine, Sable Island, the Grand Banks, and many others adjacent to our Atlantic coast, we have on that seaboard, without taking into account the smaller bays and coves, about five thousand miles of seacoast, practically every mile of which is stocked with excellent food fish, and the whole length of it is dotted with harbors and coves from which the fishermen can carry on their calling with comparative ease and safety. Off the Pacific Coast we have by far the richest and largest halibut fishery in the world. The deep seas there are also stocked with many other excellent varieties of food fish, and along the shore line there are over seven thousand miles of coast waters into which flow such large glacier fed rivers as the Fraser, Skeena, Naas and others, up which every year swarm countless thousands of five different varieties of salmon.

In addition to our sea fisheries, we have over 220,000 square miles of fresh waters, most of which are abundantly stocked with excellent fish, the supply of which is being kept up by our hatcheries.

The annual value of the fisheries now runs from about $31,000,000 to about $34,000,000 depending on the extent of the salmon run to the Pacific Rivers. In the Fraser River, there is a big run every four years, and in the three succeeding years the run to that river is on a sliding scale.

The approximate total marketed value of all kinds of fish, fish products and marine animals taken by Canadian fishermen from the sea and inland rivers and lakes during the fiscal year ended March 31st, 1915, amounted to $31,057,550. The value of the fisheries of each Province being as follows:—

British Columbia	$11,487,312
Nova Scotia	7,730,191
New Brunswick	4,940,083
Ontario	2,600,000
Quebec	1,924,430
Prince Edward Island	1,261,666
Manitoba	825,417
Saskatchewan	132,017
Alberta	86,659
Yukon	69,775

Of this amount the sea fisheries contributed $27,170,483 and the inland fisheries $3,887,067.

The fishing industry now gives employment to almost 94,000 people, over 84,000 of these being engaged in the sea fisheries.

To carry on the fisheries 282 steam vessels, 1,236 sailing and gasolene vessels, 431 carrying smacks and 38,058 boats are employed. Of the boats, 9,261 are now fitted with gasolene engines.

There is now invested in fishing gear, vessels, etc., about $24,500,000, over $22,000,000 being invested in the sea fisheries.

While the fisheries are now one of the industries of first importance to the country, their present value and importance are merely an index of what they can and will be made in the next few years.

Lack of Progress in the Eastern Fisheries and Dawning of a New Day.

While it is true that the fisheries are now worth from $31,000,000 to $34,000,000 annually, and not so many years ago their value was less than $20,000,000, the fact remains that this increase is practically altogether due to the phenomenal development of the salmon and halibut fisheries of the Pacific Coast and of the fresh water fisheries.

Now, what is the cause of this non-progression in the Atlantic Fisheries? It certainly is not due to any failure or shortage in the supply, nor to the necessity of going greater distances to make catches, nor to the need of considerable capital to engage in the industry. The supply of fish in our waters is as great as it ever was, and the fact that in the European waters, where fishing is so extensively prosecuted by all the countries bordering thereon, during every month in the year, there is no sign of depletion, is an evidence that we have little to fear in that direction.

The whole difficulty in Canada, is the question of demand. The great bulk of the fish on the Atlantic Coast is being sold in a salted and dried condition. The market for such fish is limited, and is being adequately supplied each year; but Canada itself should afford an exceedingly large and continuously growing market for the products of the fishermen.

We live in the north temperate zone, where fish are in greater abundance and of better quality, than in the southern waters, and where, consequently, they should form an important portion of the daily food supply of the people. That the day is coming, when such will be the case, and when there will be a steady and rapid growth of the fishing industry, is evidenced by the development that has taken place in recent years in the fresch and mildly cured fish business in this country.

This will be referred to later on; but it may be here stated, that while this development has been a rapid one, it is merely a fraction of what there is room for.

It is not surprising that in this new country, with its unsurpassed agricultural resources, and, until recently, with butcher's meat readily available in all portions, at moderate prices, there has been little demand, away from the immediate water fronts, for fish; but a result of this condition is that the Canadian-born population has grown up without a taste for fish, and what is

worse, with little knowledge of our fisheries and of the value of fish as food. Even more unfortunate is the fact that comparatively few housewives have learned how to cook fish so as to make it attractive and tasty, and at the same time to maintain, and, as may be readily done, even enhance its food value.

Canada is now face to face with the problem of a meat shortage. The settlement of those portions of the Prairies, which in past years formed vast cattle ranches, and at the same time the increase in the value of grain, has made cattle-raising for meat purposes on the small farm, a difficult problem. At such a time, it is of incalculable value to the country, to be able to turn to its waters to make up the shortage and to find there an inexhaustible supply of excellent nitrogenous food, to be had for the catching.

It is of the utmost importance at such a time, that the people should speedily become informed of the excellence of fish as a food, as well as of its palatability, and of the fact that with the transportation facilities now available, it is quite practicable to lay down fresh fish, smoked fish, etc., in practically all parts of the country in as good condition as when shipped from the starting point.

There seems to be a widespread opinion that fish is not a nourishing food, and that, consequently, it may not, with safety to health and strength, replace meat to any large extent. The sooner this impression is dispelled, the better. Not only is fish like meat rich in nitrogenous food,—that is, food which supplies the body with the strength to do its work and build up its tissues, but does not go to the supplying of fat and heat,—but high medical authorities advise that it cannot be too strongly insisted on, that for working people of all classes,—those who work with their heads, as well as those who work with their hands,—fish is an economical source of the energy they require to enable them to carry on their work, and it furnishes the very materials that children and young persons need to enable them to grow healthy and strong.

How much more economical it is as a supplier of the bodily needs than meat, keeping in view the price that has to be paid for each, is little appreciated. Without going into the analysis of the different kinds of butcher's meat and fish, it may be stated in a general way, that fish is only about two per cent. poorer in nitrogenous constituents than meat; but on account of its greatly cheaper price, it is a much more economical food than meat. For instance, if dressed cod,—fish with the entrails removed,—can be purchased for 8c. per pound, beefsteak would need to be sold at 8 1-3c. per pound to be as cheap a source of nourishment. If fresh haddock can be bought for 8c. per pound, fresh mutton would require to sell at 7c. to be as cheap a food. If halibut sells at 16c. per pound, fresh pork would need to sell at slightly less than 15c. to be as economical a food, as halibut is even richer in nitrogen than meats.

Also, sight should not be lost of the fact that unlike meat, up to a large measure the greater the demand there is for fresh fish, the more cheaply can that demand be supplied.

At the present time there is no demand in this country,—though there is an unlimited demand in Europe,—for the smaller sized fish. Hence, the fishermen do not find it worth while bringing these fish to shore, or if they do they receive very little for them.

Further, there are different varieties of excellent food fish that are taken in large quantities by the fishermen for which there is no market. Large quantities of skate, the wings of which are in demand in the Old Country, are caught by your fishermen; but there is practically no market therefor. Different kinds of flounders, like the English plaice and witches, are caught, which, though they make excellent eating, there is no market for. Many other varieties might be mentioned. Obviously, if the fisherman could take his whole catch to shore and be assured of a market for it all, he could afford to sell that whole catch at a cheaper rate per pound and still make the same amount of money on it.

If the demand is large enough to enable the dealers to ship fish in carload lots, the cheapest transportation rates will be available, which will enable the dealers to sell the fish more cheaply without reducing their own profits.

What the Government Has Done to Expand the Industry.

It is only a few years ago that the more important Canadian centres, such as Toronto and Montreal, were obtaining such supplies of sea fish as they were consuming, from United States sources, though in some instances the fish were first imported into that country in carload lots from Canada. The business from the Canadian sea-coasts was so small, that the railways did not find it feasible to place refrigerator cars at the disposal of shippers, and the express rates were so high that successful competition with Portland and Boston was not possible.

The Government, with a view to overcoming these conditions, and to enable the dealers to expand the fresh fish business in this country, took up the matter; but it was found impossible to induce the express companies to lower their rates. It was, however, hoped that if it were shown them that a large business were available, they would find it desirable in their own interests, to make the rates such as would assure that business being handled by them.

In the first place, an arrangement was made with the railways. whereby refrigerator cars to be hauled by fast freight, were placed at the disposal of the shippers. Such cars are now available from the Atlantic coast three days each week. The Government further undertook to accept responsibility for the payment of one-third of the express charges on less than carload lot shipments from the Atlantic coast to points as far west as the eastern boundary of Manitoba, and from the Pacific coast, as far east as that boundary. It also, for a time, had a refrigerator express service in operation from the Atlantic coast.

The results have been highly satisfactory. The importation of fish from the United States to supply the Canadian markets, it may be said, has been stopped, only such varieties now being imported as are not available in Canadian waters and for which there is a demand at hotels. The increase in the shipments by express alone, may be judged from the fact that in the fiscal year 1909-1910, the Department's one-third of the rates, amounted to about $29,000, while last year it was in the vicinity of $80,000. In addition to the less than carload lot shipments by express, several carload lots per week, consisting of halibut and salmon, are shipped from the Pacific coast to Toronto, Montreal, and Winnipeg, while from the Atlantic coast, large quantities are shipped in refrigerator cars by fast freight.

Moreover, during the whole winter season, large shipments of frozen fresh fish are made from both coasts by freight.

To bring the value of fish for food before the public, my Department, as I previously stated, has for the past two years, arranged for a Fisheries Exhibit at this great Exhibition, which is visited by people from all parts of the country, and this exhibit is being repeated this year on a larger scale than before ,and in addition, an arrangement has been made for the operation of a first-class Fisheries Restaurant on the grounds, where patrons of the Fair can be served with a first-class fish dinner for 25c. That much benefit to the business has resulted by bringing to the attention of the visitors in such a direct way, the different kinds of fish, shown in an attractive manner, there can be no room for doubt.

My Department has also prepared and distributed a very large number of copies of a little booklet, entitled, "Fish and How to Cook It." It not only contains a large number of recipes for preparing fish for table use in cheap and tasty ways, but it also embraces in a condensed readable form, much valuable information about fish and its value as a food.

To keep up the supply of fish in our fresh water lakes, and of such anadramous fish as salmon, which must ascend to the fresh waters of the upper portions of the rivers for spawning purposes, the Government operates what is probably the largest fish breeding services conducted by any one Government. There are now over fifty fish hatcheries propagating such excellent varieties of fish as salmon, shad, whitefish, salmon trout, pickerel, etc., in addition to fourteen lobster hatcheries. The annual appropriation for this service alone, is now $400,000. Its effectiveness is no longer a question of doubt. Attention need only be called to Lake Erie, in which there is no close season, but on which extensive hatching operations have been carried on, on both sides of the line, and as a result of which, the catches in the lakes have vastly increased in the past twenty years. In Lake Winnipeg, the fish supply was represented to be fairly depleted a few years ago, but it has now been so built up that during the present summer fish have been more abundant than at any time since the early days of fishing in this lake.

In many other ways, the Government is giving direct assistance in the development of this great industry.

Need of Advertising.

It cannot be expected that the Government can for all time continue to pay a portion of the transportation charges on fresh fish. Moreover, with a large enough demand therefor, no reason for so doing would obtain, as carload lot transportation rates would be available, and if the express companies could not see their way to make their rates low enough to enable the business to be handled by express, experience has shown that it is perfectly feasible to transport fresh fish in refrigerator cars by fast freight. Indeed, shipments proceeding in the latter way are surer of reaching their destination in perfect condition than iced shipments in ordinary express cars.

As has previously been indicated, the growth of the industry from now on depends primarily on the consumer. He must be educated to use more fish to give it a daily place on his bill-of-fare. To accomplish this, the dealers must do their part by proper advertising. It may be well to call their attention to the fact that notwithstanding the enormous proportions to which the fresh fish business has grown in the United Kingdom, those in the business there realize that there is room for greater expansion, and to bring this about, they are, by united effort, carrying on an advertising campaign to encourage the use of more fish. They have formed themselves into an Association known as the "'National Sea Fisheries Protection Association." Its members embrace all branches of the industry, and the advertisements made by this Association, embrace the publishing at large attractively colored posters of fishing scenes, calling attention to the public of the desirability of using more fish, as well as colored wall-cards and the distribution of booklets containing useful information regarding the value of fish as food and recipes for cooking it.

It is encouraging to know that an Association having similar aims in view, has recently been formed in Canada, known as the Canadian Fisheries Association, and it is hoped that much will be done by its efforts to educate the public into freely using fish.

Possibly the greatest outstanding need in developing the fish business in our different cities, is the absence of proper fish stores. The general practice is to sell fish in meat shops, the sellers not being persons who are skilled in handling fish, and the fish itself is often displayed in anything but an attractive way. The time has surely come when up-to-date fish stores, from which all kinds of fish in perfect condition and prepared ready to place in the oven can be obtained, would be a paying venture if properly operated in all our cities and more important towns.

What energy in pushing the sale of fish, combined with advertising, will do, is evidenced by the fact that in one of our growing towns this year, a concern increased its sales of fish in one month by $10,000.

A Possible Field for Expansion of Trade.

One effect of this disastrous war, is to very seriously curtail the fish supply of the Motherland. Not only have a large number of the most efficient fishing vessels there been taken over by the Admiralty for war purposes, but the area in which fishing may be carried on has been much restricted, so that there is little likelihood, until the war is over, of a normal supply being available from the usual sources.

It seems quite feasible that this shortage should be made up by Canada. While the shipping of fresh fish packed in ice, to the Old Country, may not be practicable, the shipping of frozen fresh fish there has already passed beyond the experimental stage, and, no doubt, properly smoked and filleted fish would also be acceptable. I, therefore, think it well to direct the attention of the fish dealers to the possibilities of the business to be done there.

When I was here a year ago the Canadian Expeditionary Force was being mobilized at Valcartier, and I then took the opportunity of saying that I believed that when that great force,—twice as great as the Spanish Aramada, and 50 per cent. greater than the force of Britishers commanded by Wellington at Waterloo—crossed the seas to take its place side by side with the British, French and Belgian troops, on the battlefields of Europe, that the conduct of the men composing it would be worthy of the traditions of the races from which they sprang and that they would act in a manner as to fill with pride the breasts of all,—Canadians and British. That that prediction has been amply borne out is witnessed by what occurred since the Canadians took their places in the battle line, and individually and

collectively, acts of heroism have been performed by them that will live in the history, and redound to the glory of Canada and the Empire for all time to come.

Other contingents have since gone and more will go, and I desire to congratulate this city on the very generous response thus given to the call to serve our King and country, on the splendid showing made by its sons and on the fact that large numbers are being recruited here every day to be sent forward, as more will be sent forward to the front so long as their services may be required.

Canada has taken its full share in the war. This is being done by the Government with the approval of the great majority of the people of our Dominion, and I am sure that they will continue to support the Administration in doing all that it can in order to preserve inviolate all those institutions and liberties and that democratic system of government which our fathers fought for and achieved, which we have inherited and which it is our duty to hand down, inviolate, to our children and our children's children.

The patriotism of Canadians may be evidenced in many ways, and if the result of the steps being taken at this Exhibition by my Department is the cause of a larger consumption of fish than at prseent, those who assist in that laudable undertaking will realize that they are not only doing something for their own material and physical benefit, but that they are also performing a patriotic act in developing and extending one of Canada's greatest natural resources, which is capable of endless expansion, and are also encouraging the employment upon the waters in and about Canada of a hardy, honest and God-fearing race of men who can be called upon when the occasion may require for the protection of the country in which they live, and the maintenance of its cherished institutions.

ALLOW FISHERMEN ON INLAND LAKES.

Commercial fishing upon the inland lakes of Ontario is likely to be permitted by the Government should the report now being prepared by the fish culture expert of the Fisheries Department, Mr. Fielding, recommend that course. Mr. Fielding has completed a survey of the inland waters, and his report is now in course of preparation.

According to Hon. Findlay Macdiarmid, it is felt that the introduction of commercial fishing with proper safeguards for the protection of game fish would have a beneficial effect upon the lakes, in addition to providing revenue. Fish, such as whitefish, etc., are not game fish, and are not taken by the line, while pike and carp, which could be taken by commercial fishermen, now make the problem of restocking the lakes with commercial fish much more difficult than it would be if they were kept within limits. Should commercial fishing be permitted the inland lakes could be stocked with whitefish and herring just as Lake Erie is now.

Special efforts are being made by the Fisheries Department this Fall to secure large supplies of herring spawn for planting at Lake Erie and other waters next Spring. While Hon. Mr. Macdiarmid has pretty well made up his mind regarding the most suitable spot for the establishment of the projected new provincial hatchery, no start is likely to be made before next year, but by co-operating with the Dominion Fisheries officials in securing a large supply of spawn for the Sandwich hatchery, good results will be obtained. Most of this spawn will be secured from the Port Stanley fishermen.

FISHING STATISTICS FOR JULY AT BOSTON, PORTLAND AND GLOUCESTER.

The fishing fleet landing fish at Boston and Gloucester, Mass., and Portland, Me., during the month of July, included 277 steam and sail vessels. At Boston 425 trips were landed, aggregating 8,968,604 pounds of fresh and salted fish, valued at $332,334; at Gloucester the number of trips landed was 154, aggregating 7,840,862 pounds, valued at $199,001, and at Portland 15 trips were landed, amounting to 2,304,313 pounds, and valued at $30,906—a total for the three ports of 19,113,779 pounds and valued at $562,241.

On July 8 a trip of 350,000 pounds of fish was landed at Portland, Me., by the otter trawler East Hampton, which is the largest amount of fish ever brought in by an American vessel of this class. On July 20 the same vessel landed at Gloucester, Mass., about 300,000 pounds.

The vessels engaged in the salt-bank cod fishery have done well, their fares ranging from 250,000 to 370,000 pounds of salted cod. Swordfish in considerable numbers were marketed at Boston during the month. The largest number landed in one day was on July 19, when 1,124 fish were reported averaging about 200 pounds each, or approximately 225,000 pounds. The catch of mackerel for the season, up to near the end of the month, was 4,818 barrels salted, and 37,420 barrels fresh, against 8,031 barrels salted and 53,651 barrels fresh for the same period in 1914.

The following table shows the fish landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels in July, 1915:

	Pounds.	Value.
Boston.		
Cod	2,062,665	$ 63,727
Haddock	3,187,000	68,711
Hake	614,865	13,926
Pollock	661,652	13,767
Cusk	102,040	1,687
Halibut	54,734	6,085
Mackerel	1,084,744	78,738
Miscellaneous	1,200,904	85,702
Total	8,968,604	$332,334
Gloucester:		
Cod	4,503,466	$128,231
Haddock	1,151,170	11,498
Hake	610,588	6,855
Pollock	95,650	1,404
Cusk	290,217	4,302
Halibut	274,638	20,717
Mackerel	369,925	21,494
Miscellaneous	545,210	4,500
Total	7,840,862	$199,001
Portland:		
Cod	96,850	$ 1,228
Haddock	2,104,974	26,319
Hake	23,910	282
Pollock	4,575	57
Halibut	55,213	2,785
Miscellaneous	18,791	235
Total	2,304,313	$ 30,906
Grand Total	19,113,779	$562,241

The Log of a Long Line Halibuter

By F. WILLIAM WALLACE.
((Photographs by the Author.)

Being an account of Pacific Halibut Fishing by the long line trawl system from a steamer.

When the Hero of the Johnstown Flood went to Heaven, he was very much annoyed by an old gentleman who used to give a sneering laugh every time the Hero related his experience in the Johnstown inundadation. At last, the Hero became so aggravated by the old man's persistent sneers, that he sought out St. Peter and asked him: "Who is that old fellow who gives a jeering laugh every time I relate my story of the Johnstown Flood?" St. Peter smiled. "Oh, you mustn't mind him," he said. "He thinks he knows something about floods. That's Noah!" Much the same kind of thing happens when an Atlantic man starts to talk about halibut fishing to a Pacific halibuter. We Easterners in the fish business of Canada must keep quiet about our Atlantic halibut while on the Pacific Coast, for out there they catch in hundredweights what we catch in pounds.

The writer had the good fortune some years ago to make the high line Canadian trip on the halibut fishing schooner "'Albert J. Lutz," of Digby, when, from the Gulf of St. Lawrence and Anticosti grounds, we

Long Line Halibuting Steamer, "James Carruthers."

fetched home a fare of 82,000 pounds. The fishing, in that case, was done from dories; the trip lasted four weeks, and each man shared $137.

Out on the Pacific Coast, halibuting is the principal fishery engaged in, outside of salmon, and from the ports of Seattle, Vancouver, and Prince Rupert, a large fleet of vessels sail forth and fish for halibut from the Oregon Banks to the Aleutian Islands of Alaska. All the Pacific halibuters are auxiliary gasolene or steam propelled craft, and with the exception of three steamers out of Prince Rupert, they fish by the dory and usual halibut trawl method.

There are several differences, however, from the Atlantic style of halibut fishing. The dories used are larger and heavier built, and are strong enough to stand being hoisted bodily out of the water with men, fish and gear in them. The fish caught are laid on a strong net in the midship pen of the dory, and when the vessel comes alongside to lighten the dory, the fish are hoisted aboard in the net, and not by the hand gaff common to the Atlantic trawlers. In such heavy dories, the men do not do much pulling to the vessel—the schooner, using her engines, runs down to the dories and the dory-mates do very little of the back-breaking plugging to windward incidental to Atlantic bank fishing. Though fitted with sails, the Pacific schooners seldom have them out of the stops on a trip and use the engine almost exclusively. Sails are only used with a fair wind; to heave-to-under, or in event of accidents.

Block ice for icing the fish is rarely used—crushed ice is loaded into the pens when fitting out and the men are spared the work of chopping ice at sea. The trawl gear used is practically the same as in the Atlantic halibut fishery—a 28-lb. tarred cotton ground line with a 14-lb. gangen rigged two fathom apart and fitted with Mustad's No. 6283 or Arthur James halibut hooks. The gear is coiled down in skates running about 6 to 8 lines of 50 fathoms a line. As the Pioneers in Pacific halibuting were fishermen from Gloucester and the Atlantic ports, they used the same methods—changing them slightly to suit the requirements of the coast.

Several schooners of the Atlantic type have been built in the East and sent around to the Pacific, but they have been found unsuitable for the existing conditions. In the first place the motive power changed places. Instead of the gasolene engine being but an auxiliary for the sails, the sails became auxiliary to the engine, and in most cases the topmasts and light sails were discarded as being of little use. The mainsail, mainboom and gaff were taken off and the riding sail used for after sail. Derricks were fitted on the main-

mast and used for hoisting dories and fish, and dories were shifted from their usual nesting place amidships and nested on the quarters. In some cases, derricks were fitted on the foremast and the dories nested in the usual place, but the altering of former Atlantic fishing schooners for Pacific halibuting is not satisfactory. There are too many erections on their decks, space is at a premium, and having been built for windward sailing in heavy weather, they are too sharply built and draw too much water.

The Pacific built type of halibut schooner is a straight stemmed beamy craft of about 75 to 95 tons, with two stumpy masts fitted with hoisting derricks and small sails. A pilot house is placed either for'ard or aft, and the dories are nested on the quarters. The fish are dressed and handled amidships and hoisting is done by gasolene winches. Owing to their light draught, they can poke into inlets and channels where the deeper draughted Atlantic schooners could not go, and as halibut fishing on the Pacific is carried on inside the inlets and channels as well as offshore on the banks, this type of craft, on tug-boat lines is the most satisfactory.

In addition to the schooners so-called, there are a number of large steamers employed in dory halibuting. These are fine steel craft built something on the lines of the English trawlers, and many of them are oil burners with a great cruising radius. The steamers fish exactly the same as the dory schooners, but carry larger crews—usually a twelve dory gang, and altogether about 35 men including fishermen. These halibut steamers fish from the Queen Charlotte Islands to the grounds off the Aleutian Islands, and run their trips to Prince Rupert, Vancouver, Steveston and Seattle.

Out of Prince Rupert, B.C., there are three halibut fishing steamers engaged in a method of fishing without dories. This method, known as "long lining," is a common mode of fishing in Great Britain, and has been practised in the North Sea and Iceland fisheries for many years.

With a desire to see, at first hand, the work of a long line halibut fisherman, the writer made the trip to the Alaska grounds on the steamer "James Carruthers," owned and operated by the Canadian Fish and Cold Storage Company, Prince Rupert, B.C. The "Carruthers" is one of three English built steamers engaged in long lining—the others being the "Andrew Kelly" and the "George E. Foster"—and it may be mentioned that the trio are all making a great success of the business in Pacific waters.

Description of Steamer.

The "James Carruthers" is a steel, screw steamer of 104 tons gross and 95 tons net, and about 110 feet in length by 22 feet beam; built and engined in Hull, England. She is built on the lines of a British steam trawler, and was fitted out for that work when originally constructed. After coming out to the Pacific Coast via the Straits of Magellan, the gallows and trawl gear were taken off and the steamer equipped for long lining.

The Crew of the "James Carruthers"

The crew are berthed forward and aft in forecastle and cabin. The former is a very lofty apartment entered by a companionway located under the whaleback forward. It contained three tiers of bunks sufficient to accommodate 24 men—nine of the berths being double. The galley and mess table were situated in the forecastle and all hands ate there.

The cabin under the maindeck aft was a small apartment with a table in the center and six bunks built into the port and starboard sides of it. Two small rooms—one for the Chief Engineer and the other for the Mate and Second Engineer—were located in the forward portion of the cabin. Fifteen men could, if necessary, be berthed in the cabin, and the extra ac-

commodation was put in the ship in the event of her being used for dory halibuting.

The master's room is situated aft of the pilot house amidships, and did duty for a chartroom as well. The steamer was fitted with steam steering gear in the pilot-house, and could be swung 90 deg. inside of two ship's lengths. The steam gear is invaluable in the navigation of the narrow Alaskan channels, and for tending the long line gear while hauling.

Steam is supplied from a single Scotch boiler fitted with three furnaces and rated for a working pressure of 180 pounds. The engines were triple expansion and capable of driving the ship at an even speed of 10 knots per hour. There is no bulkhead between stokehold and engine room, and the engine room watch consisted of engineer and fireman, with a deckhand to assist in hoisting ashes.

The Crew.

The "James Carruthers" was under the command of Captain Knighthall, a former Grimsby (Eng.), fishing skipper with a lengthy experience in working long line gear in British waters. Captain Knighthall, though a young man, has commanded the "Carruthers" for two years, and has made a success of long line fishing for halibut in Pacific waters. The second in command was the mate, Mr. Robert Whettem, also a former Grimsby long line skipper experienced in the work. The deck and fishing staff were made up of ten fishermen and one watchman. The engine room staff consisted of Mr. Hugh Troland, Chief Engineer, "Gus," Second Engineer, two firemen and one coal passer, who hailed from Iceland, and was universally known as "Chris." The last, and most important member of the crew was the Cook, Jack Hodgson—a one-time Gloucester fishing skipper.

With the writer, who signed the Articles as "deckhand," we carried twenty hands all told, and, unlike the usual run of Atlantic bank fishermen, we were a cosmopolitan crowd hailing from England, Ireland, Scotland, Wales, Sweden, Denmark, Norway, Iceland, Nova Scotia, Ontario and Newfoundland.

The master, mate, engineers, firemen, coal passer, watchman and cook are on salary—the fishermen, all of whom were members of the Halibut Fishermen's Union, were on shares and were paid a certain sum for the catch. We had a very fine crowd of men—many of them being the strongest and biggest I had ever been shipmates with. Most of them had been deepwater sailors and had come out to the Coast in square-rigged ships. Having been all over the world, the forecastle yarns of our crew were rich with anecdotes of South America, the Continent, East Indies, and the out-of-the-way places of the Earth, and there was hardly a place on this old globe where one or other had not been.

Bound for the Halibut Banks.

On Thursday, July 15th, 1915, we left the Canadian Fish and Cold Storage Company's wharf, Prince Rupert, at 11 a.m., bound for Ketchikan, Alaska, where we had to stop and procure a lading of ice. As we had to go to the grounds up off Mount St. Elias, we carried some twenty tons of coal on deck—the usual bunker supply not being enough to last us for a possible three week's cruise. Frozen herring bait and some ice were already aboard.

It was raining when we left Prince Rupert, but as soon as we steamed around the Georgia Buoy and into Chatham Sound, the weather cleared and a day of sunshine, smooth sea and warm wind replaced the drizzle common to the mountain hemmed Rupert harbour.

Ketchikan, Alaska

Steaming past Cape Fox, after passing Portland Inlet, we entered the Revillagigedo Channel about four in the afternoon, and we headed for the Tongass Narrows. The fishermen busied themselves rigging and overhauling the long line gear—seizing halibut hooks, sticking beckets into new groundlines, bending gangens, and overhauling old gear ready for the call to "Bait Up!"

At 7 p.m. the channel narrowed into a defile between huge snow-capped mountains tree clad from the snow line to the water's edge, and threading the Narrows, we came in sight of Ketchikan at 8.30 p.m., and moored at the town wharf.

As Ketchikan is an United States port, and the Chief Port of Entry for Alaska, we had to pass the

U. S. Customs before being allowed to take on ice or go ashore. An official and the Port Doctor read off the Articles from the wharf, and we, on the "Carruthers," stepped over to port when our names were called. After this formality we steamed down to the New England Fish Company's wharf and procured a few tons of crushed ice.

Ketchikan is a frontier town of the typical Alaska type. It is the base of supplies for a large mining district, as well as an important port of call for fishing craft. Though boasting a residential population of some 2,000 souls, Ketchikan has all the trimmings of a city—being brilliantly illuminated with electricity and possessing several first class stores, hotels, theatre, moving picture ohow, and three elegantly appointed saloons. At the elaborate bar of the "Poodle Dog," sundry members of our gang fulfilled the sacred rites of drinking to a "high line" trip.

After looking the town over and laying in a stock of American tobacco, we repaired aboard the "Carruthers" again, and at 4.30 a.m. on Friday, July 16th, cast off from the wharf and headed on our way to the halibut banks some four hundred and fifty miles to the northwest. Over three hundred miles of our course would be through the wonderful inland channels of the Alaskan coast.

Leaving Ketchikan and the Tongass Narrows astern, we steamed into Clarence Sraits—a broad channel with the mountainous shores of the mainland and Prince of Wales' Island looming to starboard and port. At noon we entered Snow Passage between Zarembo and Prince of Wales' Islands, and bucked the tide rips swirling through the narrow rock-bound channel. Wrangell Narrows—an exceedingly difficult strait, lay ahead—and as it required careful navigation, we kept the engines turning dead slow until the tide turned so that we could make the Narrows with the flood.

At 3.45 p.m. we started full speed ahead for Point Alexander, at the entrance to Wrangell Narrows, and shot into a mountain hemmed fjord where the tide set through like a mill race. Steam was turned into the wheel gear and the ship did some fancy swinging as the Skipper headed her around the buoys marking the channel. In some places there was only room enough for one ship to pass and kelp covered reefs edged the waterway. One minute we would be heading with the wheel at steady, the next minute we were swinging hard aport, and a minute later the "Carruthers" would be looking at her wake with the wheel hard astarboard.

At 6 p.m. we passed Petersburg—a cannery village at the northern end of the Narrows—and a C. P. R. Coast liner with a crowd of tourists aboard.

Steaming out into Frederick Sound, the mountains took on a more rugged appearance, and reared aloft from two to seven thousand feet in continuous succession on our starboard hand. Against the deep blue of the clear Alaskan sky, their snow-capped peaks stood out in startling contrast to the green verdure of their lower slopes, and the greeny-blue of the water. A wonderful country this. A land of sky-soaring mountains; great primeval valleys, titanic gorges, nameless rivers and mighty glaciers—a country given over to the mountain goat, bear, deer and animals of the wild, and with but few inhabitants other than the salmon cannery establishments in some isolated fjord or the mining camps in the river valleys.

At 7 p.m. we passed the Thomas Bay glacier and held on up the middle of the Sound for Turnabout Island. It was broad daylight then, and the sun shone clear and bright. At 10.25 p.m. we passed Turnabout Island on the port hand—the Island being clearly visible in the long Alaskan summer evening—and steered W.S.W. for Point Gardiner on Admiralty Island. At 11 p.m. it was light enough to read a paper.

Saturday, July 17th.—Passed up Chatham Strait during the night, and made Point Augusta on the N.E. end of Chicagof Island at 9.30 a.m. Entering Icy Straits, the weather turned hazy and the air became perceptibly colder. The great Muir and Brady glaciers open out into these straits and discharge great quantities of slob ice and small sized bergs into them. At 2 p.m., after Cape Adolphus was passed to port, we commenced to run into the scattered ice from the glaciers, and steam was turned into the wheel gear for sharp steering.

Great flocks of puffins and ice birds would rise from the water at our approach—the latter slopping lazily along the calm surface of the water with their tails dragging—too heavy to fly. Salmon would leap high into the air—a glitter of silver in the sunlight, and on the gleaming masses of glacier ice, hundreds of sea birds calmly regarded us as we forged past. Some of the ice cakes were veritable bergs, and reminded one of the white terrors of the Banks of Newfoundland and the Labrador coast.

Holding along the north channel of Lemesurier Island, we entered Cross Sound, and at 5 p.m. passed out into the open Pacific by Cape Spencer. A haze came in from the sea and obscured the land—a shore, bold, rocky and practically uninhabited and unlighted for a distance of 150 miles—from Cape Spencer to Ocean Cape, at the entrance to Yakutat Bay.

Sunday, July 18th.—The day opened fine and sunny, with a haze obscuring the land, though the loom of the snow-clad mountain tops could be discerned towering as high as 13,000 feet into the sky. We were well offshore, and at noon the Skipper took an observation and made the ships position as 59 deg. 34 min. North latitude. Mount St. Elias—one of the highest mountains in Alaska—could be seen away to the north, a snow-capped dome above the clouds, 18,074 feet high and almost 60 miles away. 2 p.m.—The welcome hail of "Bait up!" signalled the fact that we were on the grounds, and ready to begin fishing. The fishermen opened up the hold and got frozen blocks of herring bait up on deck, and commenced work chopping up the fish into the proper proportions for garnishing the hooks. While the gang were thus engaged, the Skipper was busy feeling the bottom with the lead and looking for a favourite ridge which he felt sure was good for a haul of halibut.

(To be continued in the November issue.)

THE N. S. FISHERIES EXHIBIT.

The fisheries exhibit at the Nova Scotia Exhibition, aside from the interesting demonstration of cutting and packing for the boneless fish trade by Robin Jones and Whitman Limited, was not more successful than usual this year. The difficulty with this exhibit is that the men who could make it interesting, the fishermen, are content to leave it to the fish merchants.

Fancy, how successful the apple exhibit would be if the producers were content to leave it in the hands of the Halifax produce dealers.—Maritime Merchant.

Some Reasons for the Small Consumption of Fish in Canada

By J. A. PAULHUS
Chairman, Editorial and Publicity Committee, Canadian Fisheries Association.

That fish has not yet reached the consuming classes I am ready to assert, and I don't expect to be contradicted. To my mind, fish is used more as a specific food than as a general and necessary one. It answers in certain places to religious precepts, such as abstinence from meat amongst Catholics, and on festival occasions under the Jewish rites. It is also used as an adjunct to special meals, or as an adornment at elaborate dinners and banquets. It has not yet been thought of as a substitute for one of the largest food commodities in usage, yet it is the only true substitute for meat, and whether the meat consumers like it or not, as our capacity to supply meat will fall short before very long, they will have to change their diet, reluctantly, but certainly.

Our Association does not intend to threaten a meat famine or to unduly influence consumers to the fish diet; we simply foretell what will certainly happen, and our prophecies are based on reliable statistics.

Fish food has certain merits which cannot be denied, and it is on these merits alone that we intend to appeal to the consumer. Nor do we want to appeal to him with interested motives. Our Association is above favoritism. We want the good and welfare of each one and all. Collectively we have faith in the industry, and we know that by constant efforts, constant application to improvements, the country at large should derive immense material benefits.

I should, perhaps, before going any further, note the causes or elements which, to my mind, retard the adoption of fish as a general article of diet. One of the stumbling blocks is the primitive and inefficient way in which this commodity is handled from the retailer to the consumer. How many establishments are there, for instance, in these prosperous and progressive Canadian cities which handle fish, exclusively, as an article of daily consumption? Very few, comparatively, I am sure. Let me tell you that in Montreal—the Metropolis of Canada—the city that boasts of being the sixth on this Continent, relatively to population, we have not one retail store that deals with fish exclusively. We have certain stores (and not very many), which carry fish as a specialty, and perhaps a few whose main commodity of commerce is fish, but most of the fish that is handled by the retail trade to the consumer is served out from butchers' shops, grocers, provision dealers, etc. In the city of Montreal there are certain regulations by which the butchers only can retail fresh fish, while the grocers can retail only prepared, smoked or cured fish. How these regulations can be enforced with justice and equity to the consumers, it is not my concern. But what is more strange, during certain periods of the year, particularly during the winter season, nearly every kind of trade handles fish, and it should not surprise any one of you if, on coming to our great city during the month of January, for instance, you should find at the door of nearly every iron, leather, dry goods merchant, saloon and cafe keeper, fish for sale, mixed up with all sorts of inconceivable promiscuities.

Under these circumstances it is surprising that this form of handling a food which necessitates so much care, should not give satisfaction to the consumer. Even most of the butchers who handle fresh fish, devote very little care, and are indifferent in most cases to a surprising degree. Once a wek a certain amount of fish will be brought from the wholesale house and thrown in a heap in some corner of the shop, to wait a couple of days, sometimes, for the exposition in front of the store on Friday morning. And what a sight is offered for sale. If is is in the summer time, after two or three hours on a piece of wood or in a box without ice, the appearance of the fish is not only non-inviting to the purchaser, but, in some instances, it is really shocking. Have you ever seen the pitiful sight of a large codfish with sunken eyes, the skin parched for want of moisture, lying on its side with its mouth wide open! It is a horror capable of disarming the heroes of Langemarck and St. Julien.

Let us turn our attention now to the grocer, who handles only cured, pickled or smoked fish. There is a corner street which you pass every morning and evening when going to and coming back from your work. Have you noticed that lot of smoked fish that is lying by the door, with some carrots, apples, ham, etc.? If it is in winter this fish stays out all day and gets subjected sometimes to a temperature of zezro or below zero. At night this same fish is brought into the heated store. Next morning it goes out again. After a week of this treatment—cold, heat, dust, snow, etc., who is going to buy this fish? Is it to be wondered at that certain prejudices exist against fish as food, and that we talk so much of education in the question. I do not say that all the fish that goes to consumption is handled this way from the retailer to the consumer, far from it. I know of good, reliable, well-equipped stores provided with all modern conveniences and up-to-date in every way. In them I recognize their co-operation with our efforts and with the Association. We give them our most sincere thanks and congratulations, and I believe I voice the sentiments of the Association when I say we shall give them our support. We shall issue rules and regulations, if it is in our power, to stop such degradation of our valuable industry by ignorant and careless dealers. Another cause which retards the popularity of fish as a food is the insistence of the retail trade to put a uniform price the year round, whether the product is rare or abundant. With a little discrimination it would be so easy to fix attractive prices when occasion should warrant it, and in this way draw the attention of the consumer, interest him in some way, teach him that in the fish business, like any other business, there is speculation, and that he has to use his own judgment and discretion once in a while.

A good deal more could be said on the matter. I hope I shall have the opportunity later on to write again on a subject which, for more than one reason, is very fascinating for me. Let me say I shall persist in my intention to agitate the fish question until every one in this country is convinced that I am right, or until the Canadian Fisheries Association orders me to stop.

The Last Parcel

By P. W. BROWNE.

All that now remains of the once vast empire ruled by France in North America—the last parcel afloat—is the Archipelago of St. Pierre and Miquelon lying off the south coast of Newfoundland at the mouth of Fortune Bay about twelve miles distant from Dantzic Point.

This little group of islands has a most interesting, if chequered, history; and as it is likely to become prominent indiplomatic circles at the conclusion of the war, the story of its vicissitudes will be of interest to readers of the "Canadian Fisherman," as the traffic with St. Pierre has been frequently the subject of discussion in Canadian prints.

Not long ago, a Montreal newspaper stated that some of the parishes of the lower St. Lawrence have become completely demoralized by the illicit traffic emanating from one of the greatest smuggling centres in the Western Hemisphere. Farmers neglect their land and fishermen their nets to engage in ventures that promise such large returns as the smuggling of whisky blanc, gin and tobacco, and the excitement attendant upon it offers great attractions to the venturesome fisher-folk in the Gulf ports. The parish priests complain bitterly of the demoralizing effects upon their people of the intemperance that prevails wherever the whisky blanc is sold or landed; and many of the country cures have complained of the traffic to the government.

St. Pierre was evidently known to Portuguese and Basque fishermen at an early date. In a map drawn in 1508 the islands of St. Pierre and Miquelon are represented by "Barbatos In." Cartier visited St. Pierre in 1535 when returning from his second voyage to Hochelaga, and found several fishing vessels there; but there is no historic account of its importance as a French fishing base till 1662, when Placentia, in Newfoundland, was taken possession of by Gargot, its first Governor. It is doubtful if St. Pierre was permanently inhabited until about the end of the seventeenth century.

Then, a small fort, mounting six guns, was erected, to prevent incursions by the English. This was destroyed in 1702 by Captain Leake, R.N. When all the French inhabitants were compelled to leave Newfound- official returns show that only one hundred and eighty land by the terms of the Treaty of Utrecht in 1713, the persons resided permanently at St. Pierre.

From 1713 to 1763 St. Pierre remained in possession of the English. Then, by the Treaty of Paris it was restored to France to serve as a port of refuge for her fishermen; but it was stipulated that it should not be fortified, and that only fifty men should be kept there as a guard for the police purposes.

On July 14, 1763, Baron L'Esperance, captain of infantry, was given possession of the colony; a considerable number of the new settlers were Acadians who had refused to become British subjects.

The local catch of fish, from 1763 to 1777, averaged about six thousand quintals a year; there being, besides the fish caught by the two hundred and twenty fishing vessels from France, manned by eight thousand sailors and fishermen. St. Pierre, during this period, carried on a large contraband trade, both with Newfoundland and the other British provinces; and New Englanders especially did an extensive business in French wines, brandies, silks and velvets.

At the outbreak of the War of Secession, in 1778, Rear-Admiral Montague, Governor of Newfoundland, captured St. Pierre, destroyed all the buildings, and deported to France nineteen hundred and thirty-two inhabitants—fishermen and farmers. From 1778 to 1815, the inhabitants, who had returned after thec lose of the American War, were chucked around like shuttlecocks by battledores.

The history of St. Pierre from that time has been uneventful. It gradually increased in population and importance as a fishing centre, its exports (dry and green fish) being over 25,00,00 kilogs in 1890, while its imports amounted to nigh 18,000,000 francs. The abnormal showing of imports is explained by the fact that St. Pierre was a literal smugglers' paradise until within a comparatively recent period, when the passage of the Bait Act by the Newfoundland Government made it prohibitary for Newfoundland fishermen to sell bait to the French. In this smuggling business the Pierrais plundered the revenues, not only of Newfoundland, Canada, and the Maritime Provinces, but for years they made even greater depredations on the revenues of France; thousands of quintals of English-caught fish were taken to St. Pierre by sale and barter, received the enormous bounty paid by the French Government (about $2 per quintal), and went to swell fictitiously the French catch of fish.

Some Newfoundlanders are enaged in the smuggling business. They sail from St. Pierre to some unfrequented part of Canadian Labrador, where (choosing foggy weather for the run), amongst the inner islands, they meet smaller craft; these smaller boats again tranship their cargo into punts and dories farther up the St. Lawrence; and lastly, it is distributed about the Province of Quebec in carts. The activity of the Canadian cruisers and the operation of the Bait Act have now largely curtailed the illicit trade. The statistics of St. Pierre show that from these causes the imports have fallen from twenty million to eight million francs.

A conservative estimate of the illicit trade between Newfoundland and St. Pierre in former years sets down the loss to the revenue of Newfoundland as being about $100,000 annually. Though the smuggling trade has been curtailed, yet Newfoundland still suffers considerable loss. A Government cruiser patrols the coast around the Burin peninsula and Fortune Bay, but that considerable smuggling still goes on is known to everybody, except, perhaps, to the Government officials.

Formerly no British consul was allowed to reside at St. Pierre; but since the settlement of the famous French Shore Question, a British trade agent has been tolerated.

St. Pierre has never recovered from the effects of the Bait Act passed by the Newfoundland Legislature in 1885, and its prosperity has since been waning. The population continues to decrease rapidly; and at present writing it is almost a "deserted village.'

There are only two or three local banking vessels prosecuting the fishery; and owing to the withdrawal

of all able-bodied men within the last year, trade has bceome paralyzed.

The large fleet formerly outfitted from the ports of Dieppe, Granville, and St. Malo, have almost disappeared; and steam trawlers are now engaged in prosecuting the bank fishery.

Though shorn of its former commercial importance, St. Pierre is an interesting spot. It is really a bit of old France within an Anglo-Saxon horizon. The town fronts a large roadstead sheltered on the eastern side by the Isle aux Chiens, extending rearwards to the ridge of Mt. Calvaire, which forms the summit of the rocky backbone of the island. The harbor is protected by a stone breakwater, with substantial quays. The Government pier fronts on the public square, on the north side of which are located the official buildings; Court House, Ministry of Marine, Custom House, and the Official Residence. The streets are unpaved, and present a rather unkempt appearance, due presumably to the decadence of the town.

The people present a very picturesque appearance; men wear gaudy shirts and loose, ill-fitting trousers; the women wear bright blouses and short skirts, not unlike those seen at Douarnez or other Breton towns. The click of the sabot may be heard on the wooden trottoirs which front the numerous cafes and cheap cabarets on the main thoroughfare, where "high jinks" are in progress nightly till the town crier makes his rounds about 10 p.m., when the populace are notified to betake themselves homeward, and the fishermen to hie to their vessels.

The town is policed by fifty gendarmes armed with swords, and "defended" by some ancient cannon placed at the approach to the harbor.

The island of St. Pierre is encircled by beaches of smooth-worn cobbles which are used as fish-drying areas. The curing of fish is not permitted within the municipal limits. The fish industry is maintained by an elaborate system of bounties covering almost every phase of the business. The fishery is regarded by France as the "pepiniere" (nursery) of the French Navy, and even beachcombers are provided for in the bounty system.

It is quite within the bounds of possibilities that ere long France will be prepared to surrender this erstwhile valuable possession to Great Britain, in return for some compensating advantages elsewhere. This were a consummation devoutly to be wished for by Newfoundland fishermen who have to compete in foreign markets with the bounty-fed exportations of French codfish.

MODEL FISHING DORY AT HALIFAX EXHIBITION.

The Shelburne, N.S., Gazette and Coast Guard man was hurriedly informed on Saturday last that two dory mates were in Mr. John Etherington's boat shop. He at once proceeded to that establishment to interview the men thinking that they had probably drifted from their vessel, and had a story of hardship to tell. Arriving there he found the dory mates sure enough. They were sitting upright on the thwarts of a trawl dory and from appearances belonged to the old school of fishermen, probably about 70 years of age. They were dressed in oil clothes, with rubber boots, sou'wester, mitts, and had the old time muffler whiskers, and in each mouth was a T.D. pipe. In the stern of the boat was a water keg and in the bow a tub of trawls. A pair of oars rested beside each of the old salts. On the outside of the dory was painted "Shelburne No. 1," and on the inside appeared Mr. Etherington's name as maker. The weather beaten faces of the men would lead one to believe that they had sailed the briny deep for many a year, but no information could be gathered from them. As the little child would say they were not "really men" at all. They were dummies, but true to life and were all ready to start for the provincial exhibition. It was a clever get up, and depicted two old salts setting out for the fishing grounds in the days that are gone.

SCHOONER WITH MONSTER SALT COD FARE AT GLOUCESTER.

Gloucester, September 10.—Hailing for the magnificent fare of 475,000 pounds of salt cod, the schooner Tattler, Captain Alden Geele, dory handlining, is home after nearly five months absence, bringing one of the largest trips in his career.

The Tattler arrived yesterday afternoon, loaded right down to the scuppers. She looked every inch the amount for which she hailed, it being the largest dory handline fare since 1909, when the craft weighed off 479,433 pounds, the stock being $15,277.31, and the second largest in Captain Geeles' career.

Captain Geele, who is a Nova Scotian from the southern part of the Province, has established an enviable reputation as a "killer" in this particular branch of the fishery. In addition to the fares above mentioned, the craft has done well in other years. In 1913 the vessel had 364,000 pounds, stocking $16,874 and last year, 379,00 pounds, which the stock was $14,382.

WANTED TO BEAT HIM UP.

The moving picture actors who have been here for some time taking pictures, had quite an exciting experience, on Saturday afternoon, says the Lookout, in the Gloucester Times, I am told, while they were engaged in picture-taking at Rocky Neck. The camera man at the time was filming a lively fist fight between a small and larger member of the company, and it looked like the real stuff to the on-lookers. Everything was getting along nicely until a husky fisherman from one of the vessels tied up at Rocky Neck, spied what was going on. The fisherman was somewhat worse off for intoxicants, my informant tells me, and was in no mood to see the little fellow get a beating from a larger man, as was taking place at the time. The fisherman lost no time in interceding in behalf of the little fellow, and started to do up the larger of the movie actors who was taking part in the "fight," and for a time things looked pretty blue, for the fisherman said he wasn't going to allow a little fellow to get licked if he could help it. Prompt explanations and interceding by the camera man and other members of the company standing near finally convinced the fisherman that everything was all right, and he finally meandered off. The interested onlookers, however, dah a good laugh over it, as probably did the actors after it was all over.

LETTERS TO THE EDITOR

WHY NOT FISH, TOO?

Editor, Canadian Fisherman:—

Dear Sir,—I note and have read with deep interest the article under the above heading which appears on Page 316, of the "'Fisherman" for September. The suggestion contained therein appealed to me last fall when the advertisements issued by the Trade and Commerce Department were appearing in almost every daily newspaper from the Atlantic to the Pacific I made the suggestion from a personal standpoint to the Fisheries Department, but, the reply was that the powers that rule did not view the Fisheries Industry in quite the same light as they do the Apple Industry. I am yet of the opinion that the Fisheries Department ought to institute some similar propaganda in the interests of our fisheries. But, evidently, the grave question arises, "'Where will the necessary money come from."

With the anticipation of rousing the wrath of other dealers in the business, and probably, obtaining an educational discussion in the column of our 'Official Organ," I would suggest that with the close of the current fiscal year, the Canadian Fisheries Association ask the Department to divert the enormous amount now spent in subsidising Express charges and utilize a similar amount towards the end suggested in the article now under review.

According to Clarence Jamieson, M.P. (page 202 Fisherman, July, 1915), it cost the Department last year over $80,000 to cover the subsidy on the Express charges. If this amount is diverted to a proper advertising campaign, I can see no other result but that the public interest will undoubtedly be awakened to "Fish Facts" and the benefit to the industry through the medium of advertising will be far in excess of the present supposed benefits from subsidized Express rates. It is stated that codfish is bought on the docks in New Brunswick at 2c. per lb., and is sold in Ottawa at 20c. The Express charge, even with the subsidy, has not reduced the cost to the consumer. The same remark will equally apply to the other varieties named in the article "Why Not Fish.' Mr. Jamieson again in his article that "in view of the assistance in the transportation charges, etc."

"The tendency of the price has, however, been rather to go up than to become less."

This is practically an admission that the subsidy paid year by year by the Government has not accomplished one of the most vital factors expected, namely, pay part of the transportation charges and the cost being thus reduced, the ultimate benefit will be reaped by he consumer.

Now, we must all realize that the most important individual in the development of fish as a good is not the fisherman, not the Express Company, not the wholesaler, nor yet the retailer. It is the consumer. I am of the opinion that whilst the cost to the dealer who now receives the benefit of the one third subsidy will be slightly increased, the actual retail price on almost every variety of fish caught in Canadian waters will be unchanged. I am sure dealers will admit this fact if they want to be honest in their opinions. Then, if so, why not ask the Government to discontinue paying the subsidy and institute an advertising campaign similar to the Apple Campaign of a year ago. The Government is no more entitled to pay Express charges on fish than they are on apples, small fruits, oysters, milk or any other commodity. In fact, the impression formed by the writer is that the parties who have benefitted more than any other by the institution of this one-third subsidy are those who need less assistance than any, i.e., the Express Companies. They have reaped the benefit of increased tonnage, for we cannot ignore the fact that more fish has been sold in Canada during the past seven years than in any preceding seven years, but has the fish-eating public really bought fish at prices which justifies the expenditure of over $300,000 in seven years? I don't think so.

Personally, I cannot see that the one-third rebate is very essential to the cheap marketing of fish. The wholesalers in different centres can lay in fish cheaper by fast freight services or in car load rates than is obtained by the local Express rates even minus the one-third rebate. This fact maintains the current wholesale prices in the various centres. What is required is a co-operative action between the Government and our Association in an endeavor to minimize retail prices and at the same time institute advertising in the Press, which will appeal to the housewife and cause a greater activity on her part towards fish as an article of diet.

Without doubt the increased consumption will realize increased sales and the profit thereby gained will more than offset the advantage of the present one-third subsidy, which, in the opinion of the writer, is not of the material benefit to the consumer which it was expected to be.

I hope to see the views of others expressed in the columns of the "Fisherman" in an early issue.

Yours truly,

W. DOUGLAS.

Winnipeg, Man.

FISHERIES ADVISORY BOARD MEETING.

A meeting of the Canadian Fisheries Advisory Board was held in Charlottetown, P.E.I., on Septem ber 30.

The man who does not advertise because it costs money should quit paying salaries for the same reason.

The man who does not advertise because he doesn't know how to write an advertisement should quit eating because he can't cook.

The man who does not advertise because somebody said it did not pay, should not believe the world is round because the ancients said it was flat.

∴ Who's Who in the Fishing World ∴

The advance that has recently taken place in the development of the fishing industry of Canada is exemplified by the growth of the company known as Robin, Jones & Whitman, of Halifax, Nova Scotia.

Although Robin, Jones & Whitman, Ltd., was incorporated only in 1910, the history of the company reaches back to the early days of the industry. The company is an amalgamation of the C. Robin Collas Company, Ltd., A. G. Jones & Company, and the Atlantic Fisheries Company, Ltd. The C. Robin Collas Company, Ltd., was one of the pioneer Canadian fishing enterprises. It was founded by Charles Robin, Jersey Island, in 1776, by whom business was inaugurated at Paspebiac on the Gaspe coast. As the business developed branches were established in different parts of Gaspe, as well as in New Brunswick and in Cape Breton. To-day there are twenty-nine fishing and trading establishments, including the headquarters at Halifax, twenty-four branches in the province of Quebec, Caraquet in the province of New Brunswick, and Eastern Harbour, Ingonish, Annapolis and Lunenburg in Nova Scotia.

MR. A. H. WHITMAN,

The firm of A. G. Jones & Company was established in 1885, and brought into the new company, an established business with old and valuable West India export and import connections. By taking over the Atlantic Fisheries Company, Ltd., the concern acquired a large outfitting establishment at Lunenburg, shares in fishing vessels, and a boneless fish business, supplying the domestic trade.

Mr. A. E. Jones, the President of Robin, Jones & Whitman, gives his particular attention to the West India export and import trade. Mr. A. Hanfield Whitman, the Managing Director, has charge of the Brazil business of the company, which is conducted from Halifax. Mr. W. F. Hamon is the resident director at Paspebiac. He manages the company's store business and has charge of a staff of about one hundred agents and clerks.

For over a century the company's trade mark, C. R. C., has been the standard of the south Brazil fish trade, to which country about half its exports of fish go. Dry and pickled fish are also extensively shipped to the European and West India markets. The company have extensive premises at Halifax excellently equipped for their business with large warehouses suitable for handling their products. The real estate, ships and plant are valued at considerably over one million dollars.

FISHES' EYES.

The dim water-countries, which cover so large a portion of the world's surface, must always have a strong fascination for the human body, which may only peep into them from the border, and the fishes, free to wander and explore where they will, are a source of envy to many of us, says the Glasgow Herald. Still, it is a great question how much the fish takes of the wonders which surround it and there are cases had a good laugh over it, as probably did the actors in which discrimination of colour has been proved. The archer fish, which shoots a jet of water at insects on the banks above, must have good sight in order to be able to take accurate aim, and the fastidiousness of salmon and trout in regard to the different kinds of "fly" also speaks well for their powers of sight.

The most extraordinary fish in this respect, however, is the anableps, which swims with its eyes half out of the water, the upper curvature being suitable for seeing above the surface, and the lower for seeing below. The other extreme is reached in those fishes living in caves or in the profoundest depths, which are quite blind. In come cases the eyes increase in size and power with an increasing depth of water, in order to take advantage of the dim green light and phosphorescent gleams which glow in the immensity. The majority of fishes have very well developed eyes, but usually lacking in lids, though some of the skate tribe have a flap of skin which they can draw over their deeply sunk eyes.

Every one is familiar with the flat fishes as they lie on the fishmonger's slab, with their queer contorted mouths and goggle eyes. These eyes may be numbered among the most mysterious objects in Nature. At birth the eyes of the flat fish are on different sides of its head, like those of other fish; also the fish swims upright, and is not "flat." Then as it acquires the habit of swimming and lying on one side the under eye gradually changes its position to the top of the head, alongside its fellow, and the whole character of the fish becomes changed.

THE ATLANTIC FISHERIES

CANSO NOTES.

(Special Correspondence.)

On Tuesday, August 24th, under beautiful weather conditions, Canso's annual Regatta came off successfully. There has been but one break-in the successive holding of this yearly sporting event since its beginning in 1884, and that was last year, caused by the disturbing war conditions at that particular time. In the old days, before the gasoline engine became such a power in the land and on the waters, the sailing races of the several classes of fishing-boats were stirring and artistic sights for the spectator. Cleaned up spick and span for the event, with all sails flung to a fresh breeze, the craft seemed like living things as, listing, tacking, running off and beating to wind'ard, working for all those little advantages, which may mean so much in a close race, they chased one another over the course. Anyone with an ounce of sporting blood in his veins, or with the smallest eye for the beauty of graceful lines and curves in motion in a background of blue water and the breezy out-of-doors must feel the charm of such a scene. There was plenty of room also for the display of skill in boat-handling and seamanship. The almost universal introduction of the very useful motor in Canso's fishing fleet has robbed the sailing races of much of this charm for the eye of the spectator; but, though it must be admitted as not quite so pretty a sight, yet a good motor or auxiliary boat-race has plenty of interesting and exciting features.

The day was an ideal one, and everything passed off pleasantly. Excursions were run from outside points, bringing a large number of strangers to mingle with the townsfolk in the sports and pleasures of the day. The Canso Band was in evidence, and gave that specialenjoyment to the day, which only music can give. Among the out-of-town visitors was Hon. E. H. Armstrong, of the Provincial Government, and J. H. Sinclair, M.P. The Prizes were given out by the latter gentleman. A notable feature of the list during the last few years has been the large number of additional useful prizes donated by various dealers in motors, oil and fishing supplies. A few of the results in the boat-races were as follows:

There were three prizes for auxiliary boats, measuring 35 to 50 feet waterline, the first, ($50 with a pair of binoculars) being won by Capt. Jacob Manuel in the Jessie M. For the class of motor-boats not over six horse-power, seven prizes were given, the first consisting of $25 in cash, together with a barrel of Premier gasoline from the Imperial Oil Co. Motor pleasure boats made up the third class, for which there were two prizes. Capt. Jack Smith. in the "Guysboro," won first place, receiving as his reward the sum of $10 and a lifebelt donated by the Fairbanks-Morse Co.

The swordfish season here, which is now on the wane, has been a good one. A large total of nice fish have been brought in and shipped off to the market. A good many American sword-fishermen have been off the coast and dodging into port during the summer. Up to about mid-September Capt. Frank Lohnes had totalled, so the writer was told, 109 fish. The local price to the fishermen has hung around 4 and 5 cents, mostly at 4.

Throughout the month of August, many Lunenburg vessels were in port looking for bait. Some great schools of squid chanced along during a couple of weeks, and Mr. George Scott and others did a fine business trying to supply the demand while the run was on.

The Dogfish Reduction Works are again in operation, handling the catches which are being brought in daily. One can depend on the delightful "dogs," the bugbear of the fishing grounds, putting in an appearance about this time every fall. The S. S. Thirty-three is again in attendance on the plant. During the summer months she was engaged in some fishery experiments, being conducted by Capt. Hjort, the Norwegian expert.

Since the middle of August, the Lobnitz Rockcutter No. 3 has been operating in Canso harbor, cutting down a ledge of rock, which, lying just about the centre of the harbor, has always been a danger, and a defect to the value of the port. Although the rock is of an exceptionally hard character, good headway is being made. When a weight of 22 tons is set in motion, something has to happen. It is to be greatly hoped that the work will be carried to a satisfactory finish, as the deepening of this part of the harbor will prove a welcome boon to shipping.

BAY SHORE OF NOVA SCOTIA.

(Special Correspondence.)

One of the old fishermen on the Bay shore relates a story of his experience the past season that was most exciting at the moment. While the skipper was at the wheel and the vessel gently gliding through the water, of a sudden a monster swordfish rushed right over the taffrail and bounced on the deck at his feet, and almost knocked him overboard. The big swordfish, finding himself in a new world, flopped around pretty lively, and the crew tried to kill him. After several desperate jumps he made an extra effort, and away he went overboard again. The water being churned into foam as he headed for the bottom. The skipper explains the unusual incident by saying that two swords that had been taken from other fish were tied over the stern dangling in the water. Evidently the fighting fish had made a dive at these, and came flopping in on deck.

A Bay shore fisherman relates to a press correspondent that when he visited his mackerel nets recently he discovered a big shark entangled in the net, and slashing the fish contents right and left. With the aid of several other fishermen, and after a most exciting encounter they succeeded in lassoing his tail, by which he was dragged ashore. The huge man-eater measured a little over ten feet long and weighed nearly one thousand pounds. It was stated that the shark was sold at a ood price and cut up for food at a big black fox ranch.

The season on the north shore of the Bay of Fundy side of Nova Scotia is about closed for fishing. Very few fish come into the Bay after the month of September, although hake are being caught in large quantities during this month. The season's catch is now dried and salted, and most of the fish will go to the Parker's Cove shipping house of Captain Herbert Anderson, and freighted to Annapolis Royal for the West Indies market, handled by Mr. Whitman. Probably seventy-five per cent. of the north shore haul will be handled by Capt. Willard Anderson in the schooner Lloyd. In the big storm recently the Lloyd broke away from the pier, and bumped up on the rocks, and punched a hole in her bottom. Only the afternoon before, the writer had advised the Captain to have his craft insured. "Oh, no," said he, "I am always in her, and she will go safe and sound." That night she dragged ashore while he was at home on the cliff. The Andersons do a big trade with the fishermen, and are a source of great assistance to them.

An uncommon accident happened on one of the fishgrounds in the Bay recently. A fisherman named Smith Howard was about to harpoon a big sword fish at the boat side. His feet slipped and over he went headlong. The man in the motor boat stopped the engine, but the boat passed over Howard and fortunately he went clear of the propeller blade. As he went under the stern he grabbed a loose rope that ran through his hand to a lucky knot tied in the end, which held him till his companion pulled him to the boat and hauled him in. Said he to the correspondent, "Davy Jones 'locker would have been my next call."

DIGBY, N.S.

(Special Correspondence.)

The Dorothy M. Smart, Capt. Wm. Snow, was the first offshore haddocker to get away from here this season, having already secured a good trip and sailed again on the 11th. The main haddocking fleet is getting in shape for the fall and winter fishing, but are not hurrying, owing to the very warm weather which has prevailed during the last few days. Unless the offshore fleet strike fairly good haddocking, there is likely to be a shortage of this fish for a while at least, as the shore boats have never had such poor catches of haddock at this season as they are having this year; although hake and cod continue to be fairly plentiful. The demand for fish seems to be good; but the curers have had great difficulty in preparing and holding their stocks, owing to the prevailing humidity this season.

The vessels have landed here within the past month as follows: "Grace Darling," August 23, 32,909 lbs.; "Britannia," August 23, 3,165 lbs.; September 6, 3,335 lbs. "Lila G. Boutilier," September 9, 94,919 lbs. fresh fish; 29,327 lbs. salt fish. "Dorothy M. Smart," September 14, 87,671 lbs. "Loran B. Snow," September 1, 74,775 lbs.; September 8, 58,300 lbs.; September 14, 18,248 lbs. "Trilby," September 15, cargo salted and dried fish to the Maritime Fish Corporation from Digby Neck. Schr. "Albert J. Lutz," Capt. John D. Apt, is at present fishing for halibut off the south coast of the province. We understand she is coming to join the Digby fleet after a few weeks' more of halibut fishing. Schr. "Myrtle L." is fitting out for haddocking, and will be sailed by Capt. Frank McCaul. Capt. Arthur Casey is having the "Lila Boutilier" well overhauled before starting at the fall fishing. We understand that Capt. Ansel Snow, after making a high line summer stock in the "Loran B. Snow," intends taking charge of the "Dorothy G. Snow" for the winter fishing. Capt. Sims, of Yarmouth, it is said, will command the "Loran B. Snow" this winter.

The following is an extract from fishery overseer Torrie's report to the Department from this district: Fish caught during the past month, 590,600 lbs.; cod, 186,000 lbs.; haddock, 1,134,400 lbs.; hake, 269,400 lbs.; pollock, 885,200 lbs.; herring, 11,400 lbs.; mackerel, 4,500 lbs.; albacore, 248 lbs.; clams, 24,600 lbs.

LUNENBURG, N. S.

The Lunenburg fishing vessels, says the Halifax Herald, are arriving from the Banks, the most of them with full fares. The following have got home to date:

Schooners.	Qtls.
Ada Westhaver	1,350
Cecil L. Beck	500
Carrie L. Hirtle	1,250
Artisan	500
Mattawa	900
Vera Himmelman	1,600
Warren Winters	1,250
Phyllis Westhaver	2,100
W. T. White	1,200
M. M. Gardner	500
Lottie A. Silver	300
Elsie Porter	1,700
Aranoka	900
Mantanzas	200
Marion Helena	1,400
Original	1,500
Florence B.	600
Douglas Conrad	850
James B. Cook	2,600
Mauriel Walters	900
Araucania	800
Lewis Westhaver	1,000
Evelyn Miller	775
F. M. Toro	1,400
Clintonia	1,200
Arcola	1,200
Gladys B. Smith	1,150
Watauga	1,100
Warren Coulp	1,100
Annie Spindler	1,000
Lloyd-George	800
Associate	1,800
Frank Brenton	1,100
Francis W. Smith	1,400

The balance of the fleet have taken another baiting and gone out on the Banks, and as the weather has been very favorable for fishing the last month, they should obtain good catches.

The schooner Ida M. Zinck is on a passage from Newfoundland to Barbadoes.

The schooner Mary D. Young is on a passage from Turk's Island to Lunenburg with a cargo of salt.

The schooner Mayola now out 28 days from Turk's Island, is due at Lunenburg with a cargo of salt.

The schooner Mark Tobin is now at Turk's Island, where she will take a cargo of salt for Lunenburg.

The schooner Canada is due at Lunenburg.

The schooner Lottie A. Silver has been chartered to take a load of fish from Newfoundland across to Oporto.

The schooner Mary Flemming has left on a fall fishing trip.

Smith and Rhuland launched another specimen of their good work on Sept. 23 in the handsomely modeled schooner "Lucille B. Smith." The vessel is 119 feet long, 26 feet beam and 11 feet depth of hold, and is fitted with all the latest modern apparatus for vessels of her kind. As the craft struck the water, she was christened by Lewis H. Smith, and named after his youngest daughter. Captain Abbott Beck is the lucky and proud commander of this new addition to the fleet, and she will be one of W. C. Smith and Company, Limited, outfitters.

ST. JOHN'S, NEWFOUNDLAND.

(Special Correspondence.)

The Labrador fishery is now practically over, several schooners have already arrived from the coast, the majority of which are fairly well fished, but yet it is almost impossible to ascertain with certainty what the actual catch is. This may be accounted for in part by the fact that many of the fishermen are purposely underestimating the sizze of the catch.

Formerly, when big catches of Labrador fish were reported, the prices declined, and unjustly so, at the expense of the fishermen, and having been bitten in this respect, they have learnt the lesson. To what extent, therefore, many of the reports given out may be relied on it is difficult to say.

The Trade Review, which is often a keen judge of matters pertaining to the fishery, has this to say of the situation at Labrador: "The Labrador fishery is not by any means a bad one. There are some places on Labrador as every summer where the fishremen have not got large voyages, but in the majority of fishing ports the fishermen have done very well, and are doing well to-day. Down about Cape Mugford and Ryan's Strand there is a large fleet of Northern schooners, and we believe they will have good trips. For our part we believe that when the total catch is totalled up bye and bye it will be fifty per cent. over the catch of 1914.

It seems, however, that the fall fishery on the Newfoundland coast which fromerly could always be looked to, to measure up at least one hundred thousand quintals, is going to be a complete failure. The absence of squid for bait is going to affect this great shortage, the bulk of the fish was prime merchantable, and the shortage therefore in the catch will tend to keep the price firm for this brand of fish.

Several of the Grand Bank fleet, which, equipped with gill nets, proceeded to the Labrador coast to fish, owing to the absence of fish on the banks, have been doing fine, and it is more than probable that this fishing will become a much larger industry in future.

There is little doubt that the prices for fish on the whole this year will be exceedingly good. Firstg rade of Newfoundland shore cure is finding good demand at $6.00 per quintal, but many of the fishermen seem content to hold on to their catch in expectation of a higher price all round soon. Small lots of extra good fish have found sale at $6.50.

Perhaps the best prices for some years are now offering for Labrador soft cured fish. The market price generally is $5.00, but several shipments have been made at as high as $5.50. This is accounted for largely by the fact that Newfoundland fish on the whole is better cured than ever before. In consequence the Spanish market which took large quantities of soft cured fish, was unable to be supplied, and efforts are being made to fill the vacancy by Labrador soft cured fish, for which in some cases contracts were previously made.

Cod oil is again mounting up from its price two weeks ago at $90.00 per ton, and sales made recently fetched from $105 to $110 per ton. Refined oil is firm at $1.05 per gallon, with not much offering.

The lobster market is the dullest at this season, last year excepted, for years. The best price realized for new pack is $13.00 per case. More than half the pack still remains in the hands of the packers unsold.

Herring has a much better demand than at any time for the last three months. The shortage of arrivals of Scotch and Dutch pack in the United States is affecting the local market. Since August 1st, 8,000 barrels of herring have been shipped away, almost all of which went to the United States.

Exports of cod fish from Aug. 1st to Sept. 10th:—

	Quintals.
To Brazil	36,813
To British West Lndies	10,510
To Portugal	3,696
To England	3,004
To Italy	1,744

Returns compiled for the Board of Trade state that the Newfoundland shore fishery to date is 430,000 quintals.

Recently in the local market 669 barrels of trout were auctioned and good prices were secured. These trout came from Labrador ,and is the first of this commodity that has offered locally for a long time. This fish is very plentiful in Labrador, and it is a wonder it is not more generally engaged in.

Mr. M. Condon, an enterprising fish merchant of Cape Broyle, has introduced squid traps. The traps are now being given a try out, and the result of the experiment will be watched with general interest.

A fish phenomenon occurred quite recently, when a school of caplin came into the shore at Bonavista Bay. This little fish generally leaves the coast before August 1st. They have never been know nto be seen so late in the season before.

The good fish cure this year is the result, in a measure from newspaper agitation carried on for a time by the "Trade Review," with but little apparent success till now.

At the present time there are a great number of green fish buyers on the coast, Canadian and United States. This industry, though only three years old, is growing fast.

The desirability of establishing squid bait depots around the coast has become more apparent this year than ever, owing to the lack of bait around the coast, and the consequent poor fish catches. Much representation has been made to the Government re. the matter,

and it is expected that at last something practical will be done

The ways and means to secure a better herring pack is now being quite generally discussed in the local press. We have the goods, but up till now we have been unable to deliver it, when in competition with other pack of no better quality but of attractive pack.

YARMOUTH, N.S.

(Special Correspondence.)

As a general rule everything in fish circles commences to liven up during September—that is, in this locality—and this September seems to have been no exception. During the hot summer months fishing is carried on in rather a desultory manner. What few vessels and boats are out seem to have all they can do to dodge the dogfish. The majority of the boats haul off. Perhaps the principal reason for this is that our boat fishermen are nearly all farmers in a small way. They own their own places, and there is the haying and the necessary cultivation of the crops to do, and as the season for this work comes along about the same time as the dogfish season, it can easily be seen that it does not take much persuasion to get a man to haul his boat up. It is also a good time for painting and overhauling, as in many instances the boats have been at work all winter, lobstering, and they sorely need paint by the time summer arrives. When September arrives, however, this work is practically all over, the dogfish, although they have not gone, are far less troublesome, and one by one the boats are put off until by the end of the month they are all active again. And they are doing fairly well this month, too, that is, as far as the quantity of fish is concerned, but the market which has been in a very nervous and jumpy state almost ever since war broke out, shows no sign of improvement, and the shipment of fish to Boston is still a great gamble. Nevertheless the shipments have been better this season than usual. The steamers have averaged larger cargoes, and there has been any quantity of fish to go forward. Mackerel have been coming forward steadily, and in fair supply. Since the early part of the season there has been nothing phenomenal in the mackerel catch, but there has been a fairly even run all through. Albacore and swordfish are growing in volume every year. Two years ago there had not been a swordfish landed in Yarmouth for commercial purposes; this month alone 938 cases—about half a million pounds—were shipped. Less than ten years ago Albacore was a nuisance. They were killed in the weirs and their bodies set adrift, or if brought ashore were used for compost; this month alone 444 cases were shipped. In this month's exports there is one item—a small one—which is very unusual. It is that 13 barrels of fresh herring were shipped to Boston. I have followed up these exports for years, and this is the first time I ever saw "fresh" herring on the outward manifest, although thousands of barrels of salt herring go over. Herring have been running fairly well this season, and immense quantities have been taken all along the shore.

Ward Fisher, of Shelburne, the Fishery Inspector for Western Nova Scotia, has been promoted to the position of Assistant Commissioner of Fisheries at Ottawa. His successor has not yet been appointed.

On Sunday, September 12, about noon, George LeBlanc, (son of Benjamin LeBlanc, lightkeeper at Candlebox Island) went down to the wharf to move his motor boat, and as he did not return for dinner search was made, and his body was found on the shore of a nearby island. He had been absent less than an hour. He was subject to heart trouble, and it is thought he must have met with an attack and fell overboard. He was 27 years of age, and was unmarried.

Following are the exports for the month:

Fresh Mackerel, barrels	1,928
Albacore, cases	444
Swordfish, cases	938
Clams, barrels	304
Dry Salt Fish, cases	2
Fish Clippings, barrels	9
Boneless Cod, boxes	1,890
Fresh Halibut, cases	196
Salt Herring, barrels	339
Salt Mackerel, barrels	217
Pickled Fish, cases	439
Cod Oil, boxes	56
Salt Haddock, drums	73
Codfish Skins, barrels	73
Smoked Halibut, boxes	2
Codfish Bones, barrels	8
Fish Waste, barrels	78
Dry Fish, casks	5
Dry Fish, drums	309
Hake Sounds, bags	730
Fish Scrap, barrels	40
Dry Cusk, drums	184
Tongues and Sounds, barrels	8
Periwinkles, barrels	1
Dry Cod, drums	663
" cases	35
" butts	2
" tierces	34
" casks	82
Fresh Herring, barrels	13
Fish Bones, barrels	22
Fish Bones, bags	5

To Brazil:
200 tubs dry salt fish.

To Havana:
88 drums dry salt fish.

To Rio Janeiro:
400 drums dry salt hake.
400 tubs dry salt fish.

FISH FOR THE SOLDIERS.

A highly interesting film of some four thousand feet has just been authorized by the authorities to be shown throughout the Dominion, says the Winnipeg Commercial. It shows a large number of scenes from the every-day life of the soldier under canvas, and was taken by special permission at Sewell Camp in this Province.

Among the many prominent features of this remarkable picture is the loading of five tons of halibut and kippered herring on military transports, under the personal supervision of the well-known Saskatoon fish merchant, Hughie C. Green, who recently returned from a trip East, where he was successful in securing the consent of the Powers-that-be to place fish on the soldiers' ration list.

This change from an all-meat diet has not only proved very pleasant to our gallant soldier boys, but has also been beneficial from a health standpoint. Moreover, it has relieved in no small measure the heavy congestion of fish that threatened the market earlier in the year, and the consequent suffering on the part of the native fishermen to the North.

THE PACIFIC FISHERIES

(Special Correspondence.)

VANCOUVER, B.C.

Reports to hand so far this season point to this year being a most unusual one. Several expected runs of fish have not yet materialized, and the season is getting on. Better news comes from the North, and some of the canners there have done very well indeed. But the Fraser River has been disappointing. Although a small run of the Sockeyes was expected and prepared for, no one looked to see it as small as it has been. According to the laws of rotation which govern the different runs of salmon, the season of 1915 was due to see a large quantity of the Pinks or Humps.

Amongst the Canadian canneries of Puget Sound, conditions are worse than on the Canadian side, if one may judge by the number of packers up around there looking for fish. In a previous number of this paper, it was stated that Puget Sound prepared for a pack of a million and a quarter cases of Pinks. So far about one-tenth of that has materialized. Cases were prepared, and these have to be filled; at the same time labour contracts were entered into which call for a forfeit of 35c. per case for short pack according to contract made. This may perhaps assist the British Columbia fishermen, for these American canners will put Chums into cans. America has a market for these lower grades with her negro population that we have not. We can give to our cousins a fair amount of Chums, if they will make it worth our while.

There appears to be a lull in the canned salmon market just for the present. I think it is safe to say that this apparent lull is only temporary for the following reason. The year 1916 is due for a short run of both sockeyes and pinks, and the carry-over from 1914 has not been large. Buyers will therefore have no difficulty in getting rid of their purchases. In fact, they will, if anything, have to go slow if their customers are to be supplied until the 1917 pack is ready. Many enquiries are stated to have been received for large quantities. Amongst these enquiries are several so-called Government contracts. But in all branches of the fishing industry, we are getting sceptical about Government orders. The rumours of them only tend to raise the hopes of somebody who has got wind of them, and who is looking for a commission. Candidly speaking, we have done all we can to get our fish where it is wanted, and ought to be, but we are now giving up hopes. We have the satisfaction of knowing that all interested have done their best to help out those who want fish and who ought to be given it.

I publish herewith a letter that will be interesting to many. Our canned salmon associations have done all possible to get this most desirable article of food on the Army list. It appears that on this list (and unless this all-powerful list contains the article, it is quite hopeless to expect to have it used by the Army) appears "Alaska Red" salmon. We all know that Alaska does not belong to Canada, although it certainly should owing to its geographical position alone. Here is the letter written to the writer of this Vancouver contribution. My friend is the late manager of one of the largest fish stores in Vancouver, and knows what he is speaking about.

> "Dear Sir,—I am over in this country, and have started to find out things already; and I want you to publish this in the "Canadian Fisherman," for it is a great wrong to both the public of British Columbia and also to the B. C. canners.
>
> Well, we had tinned salmon for breakfast twice in eight days. I did not get a look at the first tins, but did the second lot. By the colour I would swear it was either hump or dog salmon, for it was very pale. But then I looked at the label, and you have an idea of what I felt like when I read of an American firm supplying the Canadian troops with canned salmon. I am sending you a label off one of the tins, and you can use it any way that you like. I have lots of the boys to back my statements. So give them hell in that magazine.
>
> It does not seem right after what the British Columbia Canners have subscribed to our Boys France.

This is "some" letter, and written by a man who knows what he is talking about. The label is with the original of the above letter, and is a nice red gaudy one describing the fish as "Fancy Alaska Red Salmon," packed in Alaska for some San Francisco firm. CANADIAN FISHERIES ASSOCIATION, get busy.

The sea-lions of the Pacific are a distinct menace to the lives of all salmon and other fish. This has been recognized by the Dominion Government with the result that a royal commission has been appointed for the purpose of adopting some scheme to get rid of these pests. The members of the commission consist of Messrs. C. F. Newcombe, of Victoria; C. McLean Fraser, of Nanaimo; A. T. Cameron, of Manitoba University, and W. Hamar Greenwood, of Vancouver, who is also secretary of the commission. Whilst these gentlemen certainly have a job on their hand, we wish them every success in their good work. We shall send the "Canadian Fisherman" the first photograph obtainable of Mr. Greenwood putting a strangle hold on a husky male sea-lion.

There is a great dearth of shipping felt on the Pacific in the lumber trade. Now that the fleet of Alaskan cannery boats are coming South, it is proposed to utilize these to relieve the situation. There are some forty ships of all sizes in the fleet, and the high rates they could command for carrying lumber to Australia and South America during the winter is stated to be most inducive to the owners.

Vancouver waterfront has been singularly scarce of fresh supplies of fish of late. Many of the sheds are cleaned out by noon. Herring and cod fish have been particularly noted for their absence. It may be that the former are still "anchored.' It so it is time they let go now. Halibut and salmon are quickly snapped up for local consumption.

Prices are mentioned for the different frozen fish. Buyers are said to be holding off owing to supposed heavy stocks on hand. But as the season advances, no lower prices are anticipated, especially in halibut. Great Britain is open to buy frozen British Columbia fish, but there again we are up against it. Orders are easy to obtain, but refrigerator space on the Atlantic side is simply out of the question.

A new poet has arisen in the West. Readers of the "Canadian Fisherman" who would care to see the superlative efforts of this Kipling of the Vancouver fish merchants, may obtain a copy by applying to the Poet Laureate, care of the Dominion Fish Company, Gore Ave. Wharf, Vancouver, B.C.

At various times there have appeared items in this paper about the codfish of the Pacific. As far as British Columbian waters are concerned, with the exception of the black cod, the local article has yet to find its market when cured. But the cod known as the Behring Sea cod is a different proposition. Analysis has proved that compared with the Atlantic cod, the Pacific is the winner. It is also stated that the banks are larger than all those known elsewhere in the world put together.

Some years ago, when conditions were not ripe, an attempt was made to bring this fish into British Columbia and dry for the market. San Francisco, Seattle, and Anacortes have been doing this for years with success. A few weeks ago the fishing schooner "Wawona," owned by the Robinson Fisheries Company of Anacor- consisted of 258,323 fish; or 575 tons, or in other words, tes, Wash., arrived with a world's record catch. It 1,150,000 pounds of codfish. Nothing else was in the catch for hake, haddock and such species are not to be had on this coast. This vessel was gone from port about four and a half months. The writer saw the fish, and it was worth looking at, too.

Some gentlemen closely associated with the old time sealing and later on whaling business of Victoria, B.C., have lately organized a fish company known as the Ocean Fisheries, Limited. The scope of the company is a large one, but all connected with fish, and especially the codfish. The company will shortly purchase two vessels of carrying capacity 450-500 tons, and will send these to the Northern banks early in the new year. Later on, as the business develops, it is proposed to have a considerable fleet owned by the company, and this fleet to prosecute other branches of the industry.

The camp at Vernon is shortly to be closed down for the winter, and the different troops drafted back to the Coast. The question is now raised as to when that promised Order-in-Council will be forthcoming which will include fish on the Army list.

PRINCE RUPERT NOTES.

(Special Correspondence.)

Reports of the receipts of fish at the Port of Prince Rupert for the month of August show still further increase over those of July.

Of halibut 2,106,400 pounds was landed, and mostly shipped over the G. T. P. Ry to the Eastern market. Forty-seven trips were landed from American bottoms, as against 26 in July.

Of salmon. approximately 12,999,700 pounds were taken. Of this 406,800 pounds was shipped fresh. About 22,300 pounds mild cured, and the remainder canned. A total of 149,527 cases were used in canning.

In addition, 14,000 pounds of cod, and 1,000 pounds of flounders, and 400 pounds of crab were landed; making a grand total for the month in all lines of 15,-121,500 pounds.

All the canneries on the Skeena and Rivers Inlet report a good pack for 1915. The actual returns will be available later.

According to latest advices the San Juan Fishing Co. of Seattle, intend making Prince Rupert a buying port for their interests in the near future.

The directors of the Prince Rupert Fair are featuring a Fisheries Exhibit at the Third Annual Exhibition of Prince Rupert, which will be held on the 22nd, 23rd, and 24th September next. Gold medals and diplomas are offered for competition in all lines of the Pacific fishing industry.

A novel feature of the Fair will be a fish restaurant, conducted in the interests of educating people to use more fish as a food item. Although Prince Rupert is a fishing centre of increasing importance, the local public are still behind in taking advantage of the cheap line of food offered through the fish caught there. The idea is that demonstrations as to the best ways of cooking fish will be made by experts, and the proceeds will be devoted to the Red Cross Fund. The various fish companies at Prince Rupert are donating the fish, and the Prince Rupert and other hotels lending chefs for the occasion.

PACIFIC HALIBUT FARES.

Canadian Arrivals at Prince Rupert from August 15th to September 15th.

Aug. 17.—Grier Starratt, the Canadian Fish & C. S. Co., Ltd.	16,000
23.—Haysport II., The Canadian Fish & C. S. Co., Ltd.	15,000
Iskum, Atlin Fisheries, Limited	20,000
25.—Chief Skugaid, The Canadian Fish & C. S. Co., Ltd.	30,000
Chief Zibassa, The Canadian Fish & C. S. Co., Ltd.	20,000

26.—Andrew Kelly, The Canadian Fish & C. S. Co., Ltd. 100,000
27.—Borealis, Atlin Fisheries, Ltd. 20,000
30.—Seymour, The Canadian Fish & C. S. Co., Ltd. 45,000
31.—Unity, Atlin Fisheries, Limited 5,000
Sept. 1.—George E. Foster, The Canadian Fish & C. S. Co., Ltd. 60,000
2.—James Carruthers, The Canadian Fish & C. S. Co., Ltd. 120,000
4.—Zorra, Atlin Fisheries, Ltd. 5,000
5.—Haysport II., The Canadian Fish & C. S. Co., Ltd. 12,000
9.—Iskum, The Canadian Fish & C. S. Co., Ltd. 20,000
11.—Zibassa, The Canadian Fish & C. S. Co., Ltd. 40,000
12.—Skugald, The Canadian Fish & C. S. Co., Ltd. 30,000
Andrew Kelly, The Canadian Fish & C. S. Co., Ltd. 100,000
13.—Zorra, Atlin Fisheries, Ltd. 5,000

American Arrivals at Prince Rupert from August 16th to September 15th.

Aug. 16.—Panama 16,000
Omaney 22,000
Aug. 17.—Idaho 30,000
Aug. 19.—G. Theckla 7,000
Aug. 20.—Alaska 35,000
Republic 40,000
Aug. 22.—Knickerbocker 40,000
Aug. 23.—Shamrock 25,000
Olga 5,000
Liefe E. 15,000
Athena 35,000
Lister 15,000
Aug. 24.—Fram 10,000
Vesta 20,000
Aug. 25.—Aurora 10,000
Sitka 70,000
Aug. 27.—Jennie F. Decker 15,000
Gilford 5,000
Daisy 5,000
Aug. 29.—Constance 25,000
La Paloma 40,000
Decorah 10,000
Aug. 30.—Seymour 45,000
Polaris 75,000
Aug. 31.—Olympie 25,000
Sept. 3.—Myrtle Enderson 35,000
Corona 40,000
Lillian M. 10,000
Sept. 5.—Vansee 35,000
Stranger 6,000
Theckla 12,000
Sept. 8.—Sitka 65,000
Shamrock 25,000
Sept. 9.—Lister 10,000
Sea Gull 8,000
Sept. 11.—Tom & Al. 70,000
Venus 10,000
Sept. 12.—Alten 25,000
Aurora 7,000
Rainier 5,000
Sept. 13.—Jennie F. Decker 8,000
Sept. 14.—Idaho 55,000

Arrivals at Vancouver, Aug. 16th to Sept. 15th.

Aug. 21.—Carlotta G. Cox, The Canadian Fishing Co., Ltd. 70,000
Celestial Empire, The Canadian Fishing Co., Ltd. 100,000
Aug. 23.—Flamingo, The Canadian Fishing Co., Ltd. 100,000
Trapp, The Canadian Fishing Co., Ltd. 20,000
Aug. 24.—Pescawha, The Canadian Fishing Co., Ltd. 45,000
Jessie, Canadian Fishing Co. 5,000
Aug. 27.—Manhattan, New England Fish Co. . . 100,000
Sept. 4.—New England, New England Fish Company 115,000
Sept. 5.—Flamingo, The Canadian Fishing Co., Ltd. 95,000
Sept. 7.—Carlotta G. Cox, The Canadian Fishing Co., Ltd. 55,000
Sept. 8.—Celestial Empire, The Canadian Fishing Co., Ltd. 80,000
Sept. 10.—Emma H., The Canadian Fishing Co., Ltd. 35,000
Sept. 11.—Manhattan, New England Fish Co. . . 70,000
Pescawha, The Canadian Fishing Co., Ltd. 45,000
Trapp, The Canadian Fishing Co., Ltd. 15,000

Arrivals at Steveston, B.C., Aug. 16th to Sept. 15th.

Aug. 20.—Onward Ho., Columbia Cold Storage Company 120,000
Aug. 26.—Roman, Columbia Cold Storage Co. . 125,000
Sept. 15.—Onward Ho, Columbia Cold Storage Company 125,000

The schooner "Victor and Ethan," which formerly fished for halibut out of Seattle, arrived back in Gloucester on September 1. The "Victor and Ethan" is a knockabout Bank fishing schooner equipped with auxiliary engines, and was built in Essex, Mass., and sent around the Horn to engage in Pacific halibuting two years ago. The vessel proved unfitted for the work, and was sent back via the Panama Canal. A sister vessel, the "Athena," is still on the Coast.

MONTREAL OYSTER MARKET.

The unseasonable hot weather during the first two weeks in September had a disastrous effect upon the demand and stock, but with the cooler weather now prevailing, we may look forward to a good demand. During October there will be a good sale for oysters. Limited quantities have been marketed from the private beds in Prince Edward Island and New Brunswick during September, but with the regular oyster season opening October 1st, the public beds will be opened, and the supply will be plentiful.

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Vol. II. MONTREAL, NOVEMBER, 1915 No. 11

CANADIAN FISHERMAN

THE MAGAZINE OF CANADA'S COMMERCIAL FISHERIES

Official Organ of the Canadian Fisheries Association

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THE MINISTER OF COLONIZATION,
MINES AND FISHERIES OF THE PROVINCE OF QUEBEC

Department of the Naval Service
Fisheries Branch

LOBSTER FISHERY FISHING SEASONS
IN FORCE ON DECEMBER 1st, 1913

Number of District	LIMITS	Fishing Season	Size
1	St. John and Charlotte Counties, N.B.	Nov. 15 to June 15	4¼" carapace
2	Albert County, N.B. and Kings and Annapolis Counties, N.S.	Jan. 15 to June 29	No size limit.
3	Digby County	Jan. 6 to June 15	No size limit.
4	Yarmouth, Shelburne, Queens, Lunenburg, and that portion of Halifax County West of a line running S.S.E. from St. George's Island, Halifax Harbour, and coinciding with Fairway buoys	Dec. 15 to May 30	No size limit.
5	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys, eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite	April 1 to June 30	No size limit.
6	From Red Point, between Martin Point and Point Michaud, along the eastern coast on Cape Breton Island, around Cape North as far as Cape St. Lawrence; also the north shore of the Gulf of St. Lawrence from and including Blanc Sablon, westwardly to the head of tide, embracing the shores of the adjacent islands, including Anticosti Island	May 1st to July 31	No size limit.
7	The Magdalen Islands, including Bird Rocks and Bryon Island	May 1st to July 20	No siee limit.
8	Waters of Northumberland Strait, between a line on the N. W. drawn from Chockfish River, N.B., to West Pt., P.E.I., and a line on the S.E. drawn from Indian Point, near Cape Tormentine, N.B., to Cape Traverse, P.E.I.	May 25 to Aug. 10	No size limit.
9	The waters around P. E. Island except those specified in No. 8	April 26 to July 10	No size limit.
10	From, but not including, Cape St. Lawrence, Cape Breton Islands, south-westwardly to Flat Point, Inverness County, and from the Lighthouse in Antigonish County opposite Flat Point, westwardly along the strait of Northumberland and coast of Nova Scotia to Indian Point, near Cape Tormentine, N.B., and northwardly from Chockfish River, N.B., embracing the coast and waters of a portion of Kent County and of Northumberland, Gloucester, Restigouche Counties, N.B., and the coast and waters thereof of the Counties of Quebec, south of the St. Lawrence River	April 20 to July 10	No size limit.

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of The Naval Service is required.

Canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery, and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA, THE SCIENCE OF THE FISH CULTURE AND THE USE AND - VALUE OF FISH PRODUCTS -

F. WILLIAM WALLACE
EDITOR

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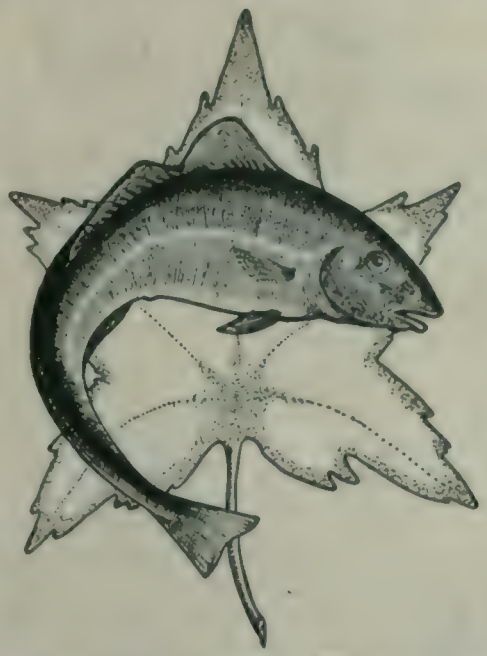

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Official Organ of the Canadian Fisheries Association

Vol. II. MONTREAL, NOVEMBER, 1915 No. 11

THE MODUS VIVENDI LICENSE.

By virtue of the Treaty of 1818 between the United States and Canada, United States fishing vessels are permitted to enter Canadian territorial waters and the harbours therein for the purpose of obtaining wood and water, to repair damages, and to shelter from bad weather. In 1888, what is known as the "modus vivendi license" was introduced, which gave United States fishing vessels the privilege of purchasing in Canadian ports, bait, ice, fishing gear and supplies; also the right to tranship their catches and forward them to United States ports in bond, and to ship crews. The license fee is $1.50 per registered ton, and during the fiscal year ending March 31, 1914, some 93 American fishing craft took out licenses on the Atlantic Coast, for which the Canadian Government received the sum of $11,728. Vessels equipped with auxiliary gasolene power are not allowed the privileges of the license.

With the exception of Georges Bank, Nantucket Channel and certain "spots' adjacent to the United States coasts, all the great fishing grounds upon which the majority of the American fleet operate are off the Canadian shores, and within easy sail of most Canadian ports. Yarmouth, Shelburne, Liverpool, Halifax, Louisburg, North Sydney, and Canso are ports which are excellent bases from which to pursue fishing operations, as they are handy to the principal fishing areas and Banks of the North Atlantic. The American vessels holding modus vivendi licenses use these ports a great deal, and spend quite a little money in them by purchasing bait, ice and supplies.

Since the United States Government abolished the tariff on imported fresh fish, and reduced the duties on other lines of prepared fish, the American fishermen feel that they ought to be allowed to use Canadian ports as a base of operations for fishing without having to pay the fee called for by the modus vivendi license. The fishing craft equipped with auxiliary engines are especially anxious to have the restrictions against them abolished.

While there are many sides to the question, and a host of arguments for and against, yet we cannot but feel that a modification of the modus vivendi to, say, 50 cents per ton register, and the issuing of the privilege to auxiliary vessels will be beneficial to the Canadian ports on our Atlantic seaboard, and without any bad effect upon our fisheries or fishing industry in general. The Boards of Trade and Municipal bodies of several Nova Scotian ports, Halifax included, have expressed themselves in favour of abolishing the license and granting the privileges of the modus vivendi to American auxiliary vessels.

In the ports mentioned above, Yarmouth, Shelburne, Canso, etc., the American licensed fishing craft have been valuable customers to the merchants of these places. The purchase of ice and bait is a considerable item in itself, while trawl gear, hooks, rope, dories, oars, fishing and vessel gear, and food supplies constitute valuable purchases from the local merchants. There is a saying among the fleets that "a fisherman never runs into a port without spending money in it!" They will always buy something, and their purchases benefit the town.

The transhipment of fish in bond to the United States benefits the port of Yarmouth principally at the present time, as it has direct steamship communication with Boston, but other of the Nova Scotian ports have, and can tranship American fish cargoes to the States. Were the license modified and auxiliaries allowed the privilege, there is no doubt but what the transhipping of fish would encourage steamship and railroad companies to put on services to take care of this traffic. These extra transportation facilities would benefit the inhabitants of our coast towns as

well, and give us opportunities to ship fish and other commodities to the American markets.

It is interesting to note that during the fiscal year 1913-14, no fewer than 219 different American fishing vessels called in at Canadian ports. About 80 or 90 of these craft held modus vivendi licenses, the others called in for shelter or for wood, water and necessary repairs. Many of these schooners called in at certain ports five and six times within the year, but as they held no license could not purchase bait, ice or supplies.

We quote these facts to show how much our ports are frequented by American craft. Is it not reasonable to suppose that if the license were modified and extended to include auxiliaries that all of them would become habitual visitors and incidentally good customers?

We suggested a moderation of the fee to 50 cents per registered ton per annum. Our Canadian fisheries need administration and development, and a revenue is necessary to pay for the same. This actuates our suggestion that a moderate fee be collected. With regard to auxiliary vessels, there is no reason nowadays why these craft should be barred. We are living in a modern age, and most fishing vessels built now are equipped with the auxiliary engine. To prevent them from enjoying the license privileges because they happen to be up-to-date is penalizing progress, and shows a spirit which is medieval in its inconsistency. Their purchases in gasolene and oil will run to a considerable sum.

Out on the Pacific Coast, American vessels have been given the right to purchase supplies, bait and ice, and to sell their fish in bond to Canadian dealers. Prince Rupert has benefitted considerably by this new law, and the American fleet, which is beginning to call in there in increasing numbers, are an unqualified boon to the merchants of the city, as well as to the many who are given employment by the shipping of fish.

Reduce the license fee, allow auxiliary vessels the same privileges, and the sight of thriving ports on our Atlantic seaboard will soon show the wisdom of such a move.

CANADIAN FISH FOR BRITISH MARKETS.

Under the auspices of the Canadian Government and the Canadian Fisheries Association, a large shipment consisting of samples of Canadian fish were forwarded to Great Britain from Montreal recently.

The samples are of frozen, smoked, cured and filleted sea and lake fish, and were collected for the Government by the Canadian Fisheries Association from the concerns identified with the organization. The fish is being transported in refrigerator. chambers aboard the steamer, and will be taken care of on arrival in England by representatives of the British Department of Agriculture and Fisheries. The samples will be on exhibition in London, and it is hoped that a lucrative trade will be built up in our fish foods with the British market.

Owing to the war, many of the fishing grounds of the British coast are closed areas; thousands of steam fishing craft have been commandeered by the Government for mine-sweeping and patrol duty, and many thousands of British fishermen have joined the colors in the Naval Reserve and Patrol fleets. As a consequence, many varieties of fish are scarce, and the demand is greater than ever.

Canada, with her inexhaustible fisheries, is in a splendid position to export certain lines of fish food to augment the supply in British markets, and the samples now being forwarded will show what we can do. For some years now, British Columbia frozen salmon and halibut have been regularly exported to England and hold a good market. Canned salmon and lobsters have been on the British markets for many years, but it is the other varieties of our food fish—haddock, cod, pollock, skate, whitefish, herring, etc., smoked, filleted, cured and in a frozen state, that we wish to introduce, and it is these lines which compose the bulk of the samples shipped.

The importance of this venture cannot be underestimated, and it is sincerely hoped that a permanent trade—apart from a temporary war-time demand—will be built up and a new export business be inaugurated for the products of our Canadian fisheries.

PISCATORIAL PARAGRAPHS.

Rev. P. W. Browne, of St. Johns, N.F., a well-known writer on fishery subjects, and author of "Where the Fishers go—the story of Labrador," is visiting Eastern Canada.

Mr. J. W. Johnson, of Hull, England, visited Prince Rupert recently. Mr. Johnson is a brother to Mr. T. H. Johnson, manager of the Canadian Fish & Cold Storage Compay, Ltd., Prince Rupert, B.C.

During the week of October 21, the American schooner "Elk" landed 11 cases of halibut at Shelburne for shipment to Boston. The schooners "John Hays Hammond" and "Harmony" also landed 14 cases of halibut and 11 cases of cod for shipment to the States, while the schooner "Mary A. Gleason" entered the port to purchase herring. All the craft have modus vivendi licenses. A good many more vessels would make use of Shelburne if the license fee were reduced and auxiliary craft allowed the privilege.

The British Fishing News tells the following: Tinned salmon packers are evidently adopting the "lucky bag" system to popularise their delicacies. The first discoverer of this "all prizes and no blanks" business is Private William Cockerill, whose home is in Victor Street, Hull. This gallant soldier was on service in the Dardanelles, where he got wounded. He is now all right again, and is at a camp in Dorset. He writes to his wife, Mrs. Ellen Cockerill, that he had opened a tin of salmon in camp, and was turning out the contents, when he found a girl's silver watch inside the tin. He of course wound the watch up and to his surprise it went for three days. From this experience we can deduce that the salmon treatment is highly beneficial. A watch which runs three days without winding is truly "some watch."

We wonder if this was British Columbia salmon? Probably not. We are inclined to think it was a can of the famous Alaska "Red" which the British Government prefers to supply instead of our Canadian product. With such valuable contents, no wonder the American product is so popular with the British Commissariat Department.

The Montreal oyster market continues quiet. Unseasonable warm weather is affecting the demand. Prospects for the future are bright, however.

It is reported that several Newfoundland sealing ships will proceed to Hudson's Bay next summer and investigate the fisheries there.

Another Puget Sound fishing firm will establish a business in Prince Rupert. This is the Klopeck Fish Co. of Seattle. E. W. Ingalls, assistant manager of the concern, was in Prince Rupert recently, and stated that the port far exceeded his expectations.

It is reported that over one million copies of the Departmental publication "Fish and How to Cook It" are being printed for distribution. We consider this a good move, and the broadcast publicity given our fish foods through the cook book will benefit the industry.

"The Commercial Aspects of the Canadian Fishing Industry," is the title of an address to be delivered by President D. J. Byrne, of the Canadian Fisheries Association before the Commission of Conservation, which sits in Ottawa on November 1.

The Gloucester schooner "Volant," Captain Vautier, landed a record fare of mackerel on October 25. The vessel hailed for 75,000 mixed fresh, and 210 barrels of salt mackerel. The trip was taken off The Race, and is a record. Mackerel are being seined and netted in huge quantities of late.

Scientists now claim that vegetable oil poured on the surface of the sea will clear fog. The oily film prevents the air from coming in direct contact with the warmer water, and thus prevents the condensation of water vapour. This might work with good effect on fishing craft at anchor on the grounds, and aid in the prevention of collisions.

WESTERN CANADA EXPORTING LARGE QUANTITY OF FISH.

First Car Lots Sent to Chicago Market From Lesser Slave Lake—Prince Rupert Has Record Catch.

Notable developments are taking place this Fall in the fisheries of Western Canada. The announcement is made by the Grand Trunk Pacific authorities that white fish is now being shipped in car lots from Lesser Slave Lake in Northern Alberta to Chicago.

The construction of the Edmonton, Dunvegan and British Columbia Railway northward from the main line of the G. T. P. has made this lake accessible, and in its waters are great numbers of fish. Two companies have been formed to carry on the fishing in the lake, and the Canadian Express Company is being called upon to supply special refrigerator cars to take the fish to Edmonton and thence by way of the Grand Trunk Pacific to Winnipeg, and by connecting lines to Chicago.

A great distributing point for fresh fish, the Chicago Market states that it can take all the white fish that can be sent from Western Canada, and the transportation companies, it is expected, will have to enlarge their arrangements next year to meet the growing traffic.

Chicago is also taking from Canada large quantities of fresh Prince Rupert halibut, and the fishing industry is very brisk at the new Pacific Coast port. Over fifteen million pounds of fish handled in the month of August was Prince Rupert's record. While the salmon end of the industry was the largest part of the business, halibut showed up well, with 2,186,400 pounds landed at this port. The salmon pack for the month represented 12,999,700 pounds of fish, representing at a modest valuation well on for three-quarters of a million dollars. Of the salmon catch, 4,060 hundred weight was used fresh or shipped fresh. There was about 223 hundred weight that was mild cured, while the remainder was canned. In the canning process, 149,527 cases were taken care of during August. There were 14,000 pounds of cod taken and used fresh, and flounders represented 1,000 pounds.

1915 NOVEMBER FISH DAY CALENDAR 1915

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
-	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	-	-	-	-

The Log of a Long Line Halibuter

By F. WILLIAM WALLACE.
((Photographs by the Author.)

Being an account of Pacific Halibut Fishing by the long line trawl system from a steamer.

PART 2.

Sunday, July 18, 4 p.m.—The Skipper picked up a favorite halibut ground on a ridge some 20 to 25 miles off the land, with 85 to 120 fathoms of water on it, and the word was passed to "shoot" the gear.

Long line trawls are put up in skates of eight lines of 37 fathoms, making a total length of 296 fathoms to a skate. The ground line is a specially imported rope of about 7/8ths circumference, laid up of three-stranded Italian hemp, and very strong. The new gear is usually tan barked, after the English fashion with fishing gear. The snoods or gangings are of the usual 14-lb. tarred cotton, one fathom long and bent to beckets hitched into the ground line at 8 to 9 feet intervals. The hooks are seized on to the ganging with tarred seizing stuff and those used are either Mustad's No. 6283 or Arthur James' halibut hook.

When ready to set the already baited gear, the skates are all placed aft on the quarter of the steamer. With the vessel steaming slow or dead slow ahead, the fishermen heave the first buoy over, and while the buoy line is running out, the first end of the baited trawl is made fast to the buoy anchor. The buoy used is usually a keg or a cork float with a twelve foot spar through it, and a colored flag. The bottom of the spar is weighted to keep it floating upright, and the whole gear is similar to the "watch buoys" used by Atlantic halibuters. The anchors are a trifle heavier than the usual halibut trawl anchor.

When the first skate has been bent on, the anchor is hove over the stern of the steamer and one of the fishermen commences to heave out the baited trawl by means of a heaving stick. When some 50 to 100 fathoms have been hove out, the fisherman 'vasts heaving and the Mate or another fisherman lays his weight on the trawl to straighten it out, then the work of paying out the gear goes on again.

Deck Scene Showing Fishing Operations.

The work of heaving trawl requires care on the part of the man heaving. Should a flying hook get snarled in his clothes, he is liable to be suddenly yanked over the rail. The Skipper, on the bridge, keeps watch on the operations, and can stop or ring the engines astern should the gear get snarled or accidents happen.

After five skates had been set in the manner described, another buoy and anchor was bent both to the

end line of the fifth skate and the first end of the sixth skate and cast over. These five buoyed and anchored skates are known as a "shank." In our first set off Cape Yakataga, we set thirty skates or six shanks, and after setting the gear, we stopped the engines and came to an anchor. With a powerful steam windlass and a good many hundred fathoms of strong wire cable, anchoring was an easy matter with us. Aboard of an Atlantic sailing halibuter we would have thought twice about anchoring with a hundred and fifty fathoms of cable out for a few hours. It would have taken a gang half the day getting the anchor up.

It was 9.15 p.m. and broad daylight when we finished setting the trawls, and even at 10.30 p.m., it was light enough in the forecastle to read a paper. The quiet peacefulness of a fine Alaskan summer evening brooded over the smooth sea and the snow covered dome of Mount St. Elias and the great ice field of the mighty Malaspina Glacier lay like rose pink clouds in the blue of the semi-Antarctic sky many miles away. The long twilight deepened into dark about 12.30 a.m., and with but the Watchman in the pilot-house, all hands slept.

Monday, July 19.—Five in the morning and broad daylight—in fact the dawn came about three o'clock. The days are long in the high latitudes in summer, and are ideal for fishing operations. The anchor was hove up by the steam windlass and the cable came in roaring alongside my head, (I slept in a peak bunk and the hawse pipe was just overhead), but it was the frying breakfast that wakened me, not the cable. This may present a scientific problem as to whether the olfactory nerves are more sensitive than the auricular.

We steamed up to the first shank of gear set yesterday afternoon, and after grappling the buoy, brought it aboard and hove the buoy anchor up. Detaching the end of the trawl from the anchor, it was led over the roller placed on the starboard rail of the steamer, and thence with a turn around the wheel of the steam gurdy located in the centre of the foredeck. Steam was turned into the gurdy and the gear came slowly up from the bottom.

One fisherman stood by the roller at the rail and gave a pull on the line every now and again when the trawl "hung up." Primarily, his work was to clear the gangings, knock off dogfish, skate, unmarketable fish and the various corals and sea growths which get caught on the hooks. Also at the rail were stationed two fishermen armed with long gaffs. As soon as a halibut appeared on the gear, they immediately gaffed it and hove it up over the rail and on to the platform upon which all the long line hauling was done. So expert were these men at this work that during the whole trip I saw but one halibut escape. It also speaks well for the muscular ability of our fishermen when I mention the fact that almost any one of them would gaff a hundred and fifty pound halibut just as soon as it broke water and heave it up and over the rail—a good seven or eight feet.

At the steam gurdy machine, another fisherman stood and tended the line as well as clearing the halibut or codfish off the hooks. From him, the trawl passed over to another of the fishing gang, who cleared and straightened out the gangings, knocked the old baits off, and coiled the gear down into skates again. The hauled skates were immediately carried aft and re-baited again by the fishermen told off for that work.

Even while the fishing was going on, two or three of the gang were "dressing down" the fish and stowing away on powdered ice in the hold. The halibut were gutted in the usual way and passed over to a man equipped with a rubber hose—the nozzle of which terminated in a sharp scraper. With this he scraped the blood from the backbone, and as the water was continually running through the hose, it cleaned the fish as well.

Our fishing gang of ten men were all working, and each spelled the other at the various jobs during the day. On a long liner, the fishing crew did nothing but the actual work of fishing. The only ship work they were called upon to do was in taking a trick at

Gaffing a halibut as it comes up to the roller.

the wheel when the vessel was under way and making a passage.

The whole success of the long line method of fishing rests with the Skipper and the Mate. When the gear is being hauled in, either of these officers are watching it from the pilot house and tending it. Should the line lead out ahead of the ship, they ring the engines ahead slow until it is practically up and down alongside and then stop. The steam is turned into the wheel gear, and the helm is worked almost continually to ease up on strains. Constant vigilance is necessary to prevent the line parting, and the engines and helm are being worked all the time. Contrary to the general belief, the steamer is not hauled

along by the gear as in a dory, but she edges along with it in a sidling manner and at no time, if the officers are watchful, does she lay her weight on the trawl.

When the long line trawl was first introduced on the Pacific Coast, some craft were fitted out with the roller and gurdy fitted on the bows, just as in a small dory. Needless to say, the line always parted, and the enterprise had to be given up. In the system practised on the "James Carruthers," and her sister ships, the lines do not lead dead ahead. If the vessel is handled properly, the buoys should be sighted from two to four points off the bow—sometimes just a couple of points for'ard of the beam. Of course, in this work, the judgment of the Skipper is of the utmost importance. The set of tides and currents, wind and sea, have to be allowed for, and the success of long line fishing depends largely upon the person in command. The successful long line men on the Pacific Coast were apprenticed to the system in British vessels, and understand the work thoroughly. Canadian or American fishermen could not jump in and take command of a long liner without a great deal of experience, and the same applies to the British fishing skipper, who would be absolutely lost in dory fisherman of the Bank type.

During the day, the line came monotonously in and fine halibut were gaffed and hove in on our decks. A large number of red cod were caught on the hooks, and the Mate facetiously remarked that "there were enough 'soldiers' on the grounds for Kitchener's army." Black cod, grey cod, skate, ling, and arrow toothed halibut came up on the hooks, but as there is no market for them of any account, they were slatted off or cut up for "shack" bait. Dogfish, similar to the Atlantic pest, were plentiful.

The presence of the red rock cod betokened a hard, rocky bottom, and the loss of six skates of gear which got snarled up among the corals and parted was the penalty for fishing on it. In spite of this, by sundown at 10.30 p.m., we had 13,000 pounds of fine medium halibut aboard.

The day was ideal for fishing—sunny and warm, with a smooth sea and a light breeze from the S.W. Icy Bay and Mount St. Elias bore about N. by W. ½ W.—the former about 30 miles away. Several porpoises played around the ship, and the numerous red cod floating around the vessel attracted a number of great gooneys who swooped down and picked out the bulging eyes of the fish.

Tuesday, July 20.—During the night we steamed to new grounds some seven or eight miles northeast, and at 3.30 a.m. we run out 45 skates of gear. At 9 a.m. we started to haul, and by 6 p.m. had all the gear aboard, and 14,000 pounds of prime medium halibut. The day was dull, with an overcast sky and a moderate sea. Set 45 skates of gear in the evening.

Wednesday, July 21.—Sky overcast. Sea smooth. Barometer steady. Started hauling gear at 6 a.m. Fishing in 110 to 115 fathoms grey glacial mud bottom, we got 13,000 lbs. of halibut, using shack and frozen herring bait on the trawls. Set the gear again in the evening, and as the night was windless and the sea as flat as a board, we simply stopped the engines and lay motionless until morning. When setting the gear in the evening it got an "'all night lay" and gave the halibut a chance to bite. A watch buoy with a lantern on it was attached to the last shank, and the steamer drifted in sight of it during the short period of darkness.

Thursday, July 22.—Sea smooth—no wind. Started to haul gear at 5 a.m. The fish are coming up in spots. On some skates there were very few, and on others there were quite a "jag." Black and grey cod, skate, and arrow toothed halibut quite plentiful. Occasional coral rocks and sponges were caught on the hooks, as well as one or two great brutes of black mud sharks. These logy fish, weighing as much as a ton and from ten to twenty feet long, would get their tails snarled up in the trawl and the fishermen would heave them

The steam Gurdy in operation.

up and cut their tails off and let the great sharks go. It would take a man a good half-hour clearing the line from the amputated tail. These fish had no life in them, and would hardly squirm when hauled up for the surgical operation. Their teeth were saw-edged and closely set, but hung loosely in their soft grisley jaws and they did not look menacing, though we often hauled up evidences of their work in half-eaten halibut. I do not think they could bite through anything hard, such as a bone, and I imagine their food is as soft as the mud in which they are to be found. To-day we got about 10,000 pounds of halibut. Set the gear again in the evening, and lay to the watch buoy. If the current or tide carried her away from the light, the watchman on duty would ring the engines ahead and stop her when abreast of the mark. Though the fishermen, skipper and mate slept, the engineer, fireman and watchman were always at their posts during the night.

Friday, July 23.—Heavy swell from the southeast—evidence of windy weather somewhere on this big pond, but with us the wind was light, the barometer steady and glued to "Set Fair." Got about 7,000 or 8,000 pounds of halibut to-day. Hazy to landward, and the snowline just visible. Set the gear again. It must not be supposed that the trawls were always set in one long string. As a rule we ran them out in three shank sets; i.e., fifteen skates together. Our total of forty-five skates might be set in three parallel lines of fifteen skates each, or probably in the form of a triangle. The contour of the bottom and the depth of water had much to do with the manner in which the lines were set. The idea was to get as many hooks as possible over the small area in which the halibut were "podded" or herded together.

Halibut runs in small schools and are not, like cod or haddock, to be found over a large area in immense schools. They seem to herd on the ascents of the underwater ridges and the edges of the banks. "The hundred fathom edge" is the favorite spot for the halibut fishermen's first sets. He will run some of his gear into the deeper water and some into shallower water, and note the results. If the deep water gear shows a good catch, he will set more of it in the deep water on the next set, and vice versa.

Saturday, July 24.—Fine, sunny, sea smooth, barometer steady. Hauled gear at 5.30 a.m. Got about 8,000 pounds for the 45 skates. Poor fishing. 8 p.m. Full speed ahead. Steering E.½S. looking for a new ground. On account of our coal supply, we have to be working in the direction of home.

Sunday, July 25.—Ran 42 miles and stopped at 1 a.m. Set the gear at 4 a.m. in 100 to 125 fathoms off Yakutat Bay, and picked up about 10,000 pounds of halibut. Spoke the American steam dory halibuter "Manhattan" at 10 p.m. She had been fishing as far east as the Shumagin Islands, and was bound for Vancouver. This craft is one of the finest fishing vessels on the Coast, and burns fuel oil.

Dressing down the fish.

Monday, July 26.—Steamed for 15 miles to the eastward of yesterday's fishing ground, and set the gear early in the morning. Started hauling at 9 a.m., and by 8 p.m. had 7,000 pounds of halibut and 5,000 pounds of black cod aboard. As our fishing time was up, all hands cleaned up the decks, battened down the hatch, stowed the gear away, and the engines were rung "Full Speed Ahead!" for Prince Rupert—steering E. by S.

With the work finished, our gang had a great clean up, and freshly shaven, we gathered aft, yarning or singing. The only music aboard consisted of an accordion, but Mr. Whettem, the mate, entertained the crowd with several of the latest selections from the English Music Halls. His impersonation of a chorus girl singing "Jack's come 'ome again!" was extremely humourous. All hands were feeling good. The hard work of fishing was over, and there was a good trip below.

Tuesday, July 27.—Steering E. by S. Hazy, fine, heavy swell. Taking the outside route down to Dixon Entrance we held along well offshore, steaming a good ten knots. The heavy mists of the Alaskan coast hung heavy over the land, and it was invisible during the day, but in the evening we hauled inshore to pick up a point of departure, and raised the land about two miles off. Owing to the absence of lights on this coast, the navigator has to go by well-defined landmarks, and the Pacific Directory. With the log and an Alaskan Coast Directory, we figured out that we were off Redfish Cape on Baranof Island, and confirmed our position when the contours of Branch Rock and Sea Lion Rock were defined at 8.30 p.m. The heavy swell broke over the sterile reefs and crags in acres of foam and the roar of it could be heard a mile offshore. Truly a desperate coast to be shipwrecked on!

Passing Sea Lion Rock, we set the course S. E. by S. to carry us just off the Hazy Islands.

Wednesday, July 28, 1 a.m. The night is black dark and thick of fog. Whistle is kept going at one minute intervals, not only to act as a warning to any other vessel in the vicinity, but also to warn us should we get in on the land. Many a vessel crawling down these mountainous coasts has been warned of the close proximity of the shore by the echo of the whistle. After passing the Hazy Islands by dead reckoning, the course was changed S. E. by E. ½ E. for Forrester Island, and all day long we rolled down the North Pacific in the thick fog and heavy swell—slowing down when the fog blanket thickened, and stopping at intervals for a sound of the lead to pick up a position.

By 8 p.m. we reckoned we had made Dixon Entrance by log and soundings, and the Skipper headed her in. It was as thick as mud and no signs of clearing, so Captain Knighthall had the watch buoy rigged and put over and we steamed to the light all night with the whistle going at intervals.

Thursday, July 29, 5 a.m. Clearing slightly. Brought watch buoy aboard and steamed ahead. At 6.45 a.m. Rose Spit buoy was sighted in the haze, and at 9.15 a.m. Brown's Passage Light was passed and the steamer headed in for Prince Rupert. Considering the tortuous and broken nature of the coast, the insufficient aids to navigation and the heavy fog, it was a nice piece of navigation on our Skipper's part.

It was clear and fine when we steamed up Prince Rupert harbour and tied up to the Custom House wharf at noon. An hour later, the "James Carruthers" was alongside the Canadian Fish and Cold Storage and discharging her catch, which, when weighed off, amounted to the respectable trip of 100,000 pounds of halibut.

Conclusion.

Comparing the long line system of fishing with the dory system in sailing schooners, I must say that the long line is by far the safest and easiest method. The work is all done from the deck, the fishing crew is cut down by half and the fisherman's lot is much easier. Our crew were able to get their meals at regular hours and had the whole night below. True, a ten dory vessel would cover more ground and clean up more fish than we could, should they strike a pod, but in the long run, I think the long liner has the best of it.

Upon the Atlantic, the writer fished in an eight dory schooner with a crew of nineteen men. Our trip lasted four weeks, and we brought in 82,000 pounds of halibut. Each man shared $137 out of the trip.

Upon the Pacific, in the long liner "James Carruthers" we carried nineteen men also. Our trip lasted 14 days, and we landed 100,000 pounds of halibut. The fishermen shared $125 apiece for the trip, and as our crowd has made two trips within the month, they drew $250 for four weeks' fishing. In the long lining, there are various expenses which do not apply to the sailing schooner. Steam is a necessity, as the long line gear cannot be successfully prosecuted from anything but a steamer. For the gurdy, a gasolene engine does not allow of enough mobility for stoppages and slowing down on the gear. A steam vessel is necessary to properly tend the lines as the engines are being worked ahead and astern, full speed, half speed, slow and dead slow all the time. A gasolene engine will not do this properly or with any certainty. Steam is also necessary for hoses.

The whole success of the long line gear, as said before, depends upon the Skipper. Ordinary fishermen used to rigging trawl gear and baiting up, dressing down and stowing fish, can readily pick up the work under his direction.

It seems to the writer that there is a great future in the Canadian fisheries for long line trawling, and there is nothing to prevent it being worked upon both oceans and in any kind of Bank fishery. It is easier, quicker, and best of all, safer.

Comparing the halibut caught, the Pacific variety was of a smaller grade than what we got on the Atlantic. The western fish were mostly mediums of less than 100 pounds—from 20 to 70 pounds was the average run. The fish caught on my Atlantic trip ran large and were mostly over 100 pounds—one of them scaled 300 pounds. These fish were good quality, but a trifle large for the market which calls for small fish. In the Pacific, the fish are more plentiful though they are beginning to show evidences of breaking up, and in the future the vessels will have to be content with smaller catches and must go further for them.

Our trip was discharged before the day was over and shipments of our halibut were re-dressed, washed, iced and packed in boxes and loaded into Grand Trunk Pacific refrigerator cars for shipments to eastern markets while the unloading was going on. Discharging was a quick job. The fish were hauled out of the hold in a great net and by this means a thousand pounds at a time could be hoisted out and dumped on to the dock.

Six days later, the halibut caught up off Mount St. Elias, in the waters of the North Pacific were being eaten in Toronto and Montreal—fifteen days having elapsed from the time our first fish were hauled out of the water. When one considers that they were transported over 500 miles by sea and 3,170 miles by rail over the Grand Trunk Pacific within that time, it shows the value of the great transcontinental railroads to the fisheries on the Pacific Coast.

The "Haysport No. 2," after making three trips as an independently operated halibut fisherman, is now tied up at Haysport, and will not operate again this year.

Canadian Salmon for American Canneries

What has possibilities of developing into a problem for our fishery authorities to solve, has sprung into notice on the Pacific of late. It is the question of shipping fresh salmon to the American canneries of Puget Sound.

As long as the B. C. canneries can get sufficient fish for their own requirements, the matter calls for little consideration, for all surplus fish caught may as well be sold for cash by the fishermen. But when the B. C. canneries are unable to get fish, owing to the American operators sending collecting boats into Canadian waters with cash, and paying higher prices than the Canadians themselves can afford, the matter offers complications. There may be many reasons why the Americans can pay more than the Canadians, but this is not the question.

The American packers on Puget Sound work on a somewhat different basis to what the Canadians do. Their markets are larger and they are also protected by a duty of 15 per cent against Canadian goods. In many cases the canner has nothing to do with the sale of his pack at all. This is left in the hands of the large brokers who are in a better position to guage the markets, know the requirements, what stocks are unsold, and what other packers are putting up. It is very largely on the advice of these brokers that the canner makes his preparations for the season. They prepare for a certain sized pack, judged according to the laws of rotation that the different salmon seem to follow each season. Labour contracts have to be made whereby a certain pack is guaranteed, cans are provided that have to be filled, and in some cases forward sales are made by the broker that call for delivery of goods.

But along comes a season like that of the present year, 1915, when all calculations are upset, and recognized laws of rotation were not followed out. This season a large pack of pinks were prepared for. The humpback salmon was due for a big run. The season was very late and the run of fish nowhere near what was expected. The American canners had to fill cans and pack a certain quantity of cases or else they were up against a forfeit of so much per case on every one short delivered. They, therefore, had to get fish somewhere, and naturally turned to the Canadian waters. All fish except the Sockeye are allowed to be exported fresh from Canada.

Pink or Humpback salmon have gone in very large quantities to Puget Sound this past month. The fishermen have been the gainers and are better off as individuals than if the large run expected had come and even if the expected quantity of Sockeye had appeared on the Fraser. The Canadian canners fixed the price of Pinks at 3c. each fish, for, at the present state of the canned salmon market, this would allow them to pack at a profit. Some American salmon tenders (these boats are large carriers, which go around amongst the fishermen collecting their catches and bring the collection to the canneries), arrived on the Fraser and started getting the fish from the Canadians by the simple method of raising the price and bringing up the gold for the fish. To get their requirements, the Canadian canners had to meet or better these prices with the result that by degrees the price rose to 5c. each. At this price the Canadian canners about broke even, and decided that no good would be served by packing at a loss. After the 5c. price was reached, the B. C. packers had to quit canning their own fish.

Then started a competition between the American buyers for the fish. The larger canneries of Puget Sound realized that these big prices were of no use to them, for no good would be served by packing at a loss. In addition to the price paid for the fish, they had to pay about another 1½c. per fish for transportation to their canneries. It was not the large canneries of Puget Sound that boosted the prices by any means. It was the smaller and newer packers who seemed to have a desire to fill their cans no matter what the fish cost them or what the fish would ultimately net them on the markets. The game, therefore, went on merrily on the Fraser and neighbourhood until the price of 7½c. each was paid in cash to the fishermen for Humpback salmon.

Besides working a loss to the Canadian packers, it meant that it was impossible to pack Salt salmon. The grade usually packed in this form is the Pink or Humpback, and above 3c. each for the fish, it is only losing money to attempt to pack at any higher prices.

The American canners realize that it is doing no one any good to boost the prices as has been done. The larger and old established canneries are satisfied to pay cash for the fish as long as they can get them at a price they can pack at. These people are also under a handicap. They run their canneries until the last of the season, which is about November 15. This means that to do this they have to get fish. But the people who drove up the price to such an extent only pack so many cases, and then when their cans are filled they quit. Owing to the fact that the majority of the fishermen are Japanese, it is difficult to show them the mistake they are labouring under. They have an idea that they can get their own prices for their catches, and are given this impression by the mad scramble made by the newer and smaller American canners. Then when these latter are out of the field those remaining can get their fish for practically their own prices. But to assure themselves of a steady supply they offer to make contracts at prices that will allow all to make money. This is not good enough for the fishermen, for they think that all they have to do is to sit tight and get the outrageous prices they ask. It is merely a certain trait in the character of these Japanese fishermen. According to their way of thinking, the future can take care of itself.

This state of affairs is all very well for the fishermen, but it puts the cannery men in a bad position. The fishermen gets advances from the cannery they fish for and through whose influence they get their licenses. They get advances for purchasing their boats, nets and engines. As they turn in their fish to the cannery, these debts are liquidated, and the cannery gets fish in return for outfitting the fishermen. But when good gold and double prices are offered the

fishermen, they jump at it. The cannery may perhaps get its money back and perhaps the fishermen will own their boats all the sooner. Anyone with an idea of local conditions will understand the use of that word "perhaps" in this connection.

Some protection has to be given to the canneries who have such a large amount at stake. British Columbia cannot afford to have her Fraser River canneries closed down. Therefore, there are all sorts of conjectures as to what will have to be done. On the American side, rumors were rife to the effect that the export of fish was to be prohibited, and severe restrictions placed on American buyers. On the Canadian side, it was reported that Ottawa had been requested to close all fishing on the Fraser for the rest of the season. Whatever will be done, will call for careful thought.

To many minds, the present method of granting licenses is at fault. Hard as it may seem, many white fishermen are in actual want, whilst the Japanese are making good money. But this is a matter that cannot be gone into here. Moreover, it is the fault of the white fishermen in the past that is to blame to a great extent for the present state of affairs. But that white fishermen cannot fish and that Canadian canneries have to shut down, seems to be a state of affairs that calls for quick and careful action. Ottawa cannot do it if she tries to without coming to the Coast and carefully going into details. But it is agreed that action must be taken.

Whilst on this matter there is another point that has been gone into by men who have studied the situation carefully. This is the conservation of our fisheries.

We admit that great honor is due to the Department at Ottawa for the manner in which it has developed the salmon hatcheries. The final fate of the salmon has been deferred by their presence. But there is a growing impression around that the Fraser river as a great salmon centre, is done, and that all the hatcheries and conservation cannot prolong the industry much longer. We all know that the American side profits just as much as we do by these hatcheries, for a great part of the fish brought up in them, find their way into American waters.

A solution was offered me by a man who has carefully studied the situation. According to him, the salmon has too many enemies to-day. The hatcheries offer the salmon certain protection but not enough in proportion to the amount of newer enemies that are appearing against the salmon yearly. In the days when the Fraser was without the canneries and in the ages long ago when there were a few scattered natives who caught fish by very primitive means, Nature had to provide a method to keep the salmon from getting too prolific. If she did not, at the rate salmon breed and multiply, the waters would be impassible with these fish. Nature, therefore, sent enemies to eat the spawn and keep the growth within reason. These enemies are the other fish on the Fraser, such as suckers, trout, carp, etc., etc. To-day, in addition to their ancient enemies which Nature thought quite sufficient for the purpose, the poor salmon are up against the wiles of man. Man's ingenuity has evolved methods that might almost correspond to the machine gun in modern warfare.

It has been suggested that in addition to hatcheries, closed seasons and other methods provided for the protection of the salmon, that their old original enemies be removed. Surely man is enemy enough these days? By the destruction and removal from the Fraser and other rivers of all such fish as suckers, carp, trout, etc., the industry cannot but flourish. Millions and millions of eggs would be saved to nature. We all know that the best bait for fresh water fish is a nice salmon egg.

Such a suggestion will, of course, raise a howl from the sporting fishermen. Let it. They contribute practically only to their own amusement. Salmon contributes to the welfare of British Columbia and the whole of Canada.

FROZEN FISH FOR GREAT BRITAIN.

The following paragraphs are from the British Fishing News:

Fish is now so scarce and dear that the Government are considering the experiment of importing chilled or frozen supplies from Newfoundland and Canadian waters.

The review of retail food prices in the United Kingdom for the 12 months ended July 31, just issued by the Board of Trade, shows that the greatest advance has been in the case of fish. It amounts on the average, to 75 per cent.

The branch of the fish trade most closely associated with the consumer which has been hit the hardest is fish-frying, or the small dealers who sell fried fish and chip potatoes in poor neighbourhoods. In the industrial centres of the north so enormous is the number of workers who make fried fish one of the principle articles of their daily food that dealing in "fish-and-chips" has become a vast industry. The business is now beset with serious difficulties. It is primarily for the purpose of relieving it that the fisheries division of the Board of Agriculture and Fisheries are consulting with a view to the import of fish, in a chilled or frozen state, from North America.

Mr. W. H. Brown, Great Yarmouth, writing to the Times anent the proposal of the Government to import frozen fish, says:—Perhaps a few words from one who has been over 40 years in the fish trade may be of some value in so important a matter to the fish trade and the public. In the first place, I should think the idea a very good one. Fish was never anything like its present price before, and when the war is over it will never be cheap again, but will constantly be getting higher in price on account of the constant exhaustion of the near-at-home fishing grounds and necessity of continually having to go further north, so that the importation of frozen fish would become of a permanent nature when once the trade got used to it. There will be difficulties to be got over, as in all new ventures. There must be facilities for cold storage, because the trade could not take more than they could dispose of from day to day. Of course the management must not expect frozen fish to make as much as our own fish. In the case of frozen salmon, on an average, perhaps, it makes about half as much as English or Scotch fish, but at that price it pays the importers. The public would soon get used to the best way of treating it—namely, to thaw it in cold water.

THE FISHERIES' FORUM

LETTERS TO THE EDITOR.

BUILDING UP A FISH BUSINESS.

The Editor, Canadian Fisherman.

Dear Sir,—In my former contribution to your columns, with the above title, I intimated that my second article, to follow soon, would recount the attempts made from time to time in Nova Scotia to reduce the modus vivendi fees and admit American auxiliary vessels to the license privileges, together with a passing reference to the under-current of opposition, now happily almost at a dead slack. It was intended to show how readily the demand of Prince Rupert was granted, and how long the humble petitions of the people on our Eastern sea-board were politely pigeon-holed. But shortly after the appearance of my first letter on this subject, there was a general awakening all around our shores. Men of affairs, as well as native fishermen, began to get the scales off their eyes. Nearly every one took a more rational view of the situation. Plainly enough, the Province had been standing in its own light. The one event which put even the least considerate on a train of serious thought, was the sudden change of base in British Columbia. Then Prince Rupert, coming into the limelight with her flourishing fish business, built up by the free traffic of the large Seattle fleet, compelled the object lesson for our unsophisticated folk. The conclusion was irresistible. We had but to say the word, and the New England fish navy would focus on our ports also, injuring nothing, but leaving lots of cash for supplies from seines, freezers and groceries. Every port from Yarmouth to Canso would pick up a goodly portion of such a remunerative trade, if the embargo were only lifted from our coast.

Moved by these considerations, the various Boards of Trade began to line themselves up in favor of the very contention that some of them would have scouted not many years ago. To my great surprise, Halifax led with a resolution which showed more earnestness than correct knowledge of the whole matter in hand. However, it set the other Boards on edge. They followed in quick succession. No need to mention all of them, but the move was general. Yarmouth put itself squarely on record for the freedom both to sell and to buy and from those good customers. The Bay of Fundy side of New Brunswick was nowise behind with its declaration for unhampered intercourse with neighbors who would patronize the shore shops. The St. John Board of Trade spoke out in no uncertain tones. Last, but by no means least, the new-born Canadian Fisheries Association, of which, if I mistake not, The Canadian Fisherman is the acknowledged organ—this influential body, I say, cried out for a revised modus vivendi, and like the lively youngster we see in the chromo, reaching for the soap, the said association "would not be happy till they got it." So far as I know, the Digby Board was the only one to deny the faith. The grounds for their objection were never made public. Rumor had it that Mr. H. B. Short, of that town, local manager for the Maritime Fish Corporation, and also a member of the association mentioned above, set his face like a flint against the proposed reform. If this report is true—(it has been often affirmed, but never denied)—Mr. Short's action in this respect is simply unaccountable. That gentleman, far from opposing free entry on the Pacific, was actually one of its strongest supporters, spending some time in Prince Rupert when the agitation was on, and also visiting that city no longer ago than last year, when it is whispered he was offered the position of manager with one of the large fish companies there. Mr. Short, of course, is lord of himself, like any other man of standing, and can do as he pleases in such circumstances, but why he should vote for business on the other side of the continent, and try to veto it so near home, is an enigma more puzzling and less pleasant than any the Sunday papers have contained very lately. Moreover, being present when the said Association pronounced in favor of widening the traffic, he must have brought in a minority report.

In the meantime numerous petitions were going forward to the government from hamlets and harbors all along. They were of the same tenor,—asking with special stress that motor craft of foreign registry should be permitted to take out licenses to buy bait and other needfuls which the inhabitants had to sell. Why there should be an adamantine wall of prejudice against that class of vessels, was one of the mysteries people wanted solved. It seemed constitutionally within the power of the government to deal with the matter, one way or the other; for the Act, under the authority of which fishing licenses are sold to foreign vessels, expressly states that, while the modus vivendi provision can be amended only by consent of parliament, the terms on which licenses are granted or refused, are at the discretion of the governor-in-council. I do not know what effect, if any these popular memorials had on the powers at the capital, but there was no visible sign of a change of policy in this regard.

In order to strengthen our side of the case by an argument drawn from the American attitude towards this question, I put myself in communication last spring with Senator Henry Cabot Lodge and Congressman A. P. Gardner, both prominent in New England politics, and both hitherto names to conjure with, in all that pertains to fishermen's rights. Mr. Gardner, who was first approached, had already heard of the order in council for British Columbia, and further, some one had been filling his ears with a dismal tale of the blight that had fallen on Seattle in consequence of the domestic fleet leaving that port and fitting out in Prince Rupert. He absolutely refused to endorse a scheme that would be equally disastrous to Boston and Gloucester by transferring the patronage of the home fleet to Yarmouth and Liverpool. Senator Lodge was very friendly at first. He was not aware of the Pacific deal. He was under the delusion that the Newfoundland bait question had something to do with it, and he assured me of his heartiest sympathy, promising his umost support in behalf of the American fleet. One week afterwards he learned of the Seattle incident, and then his tune was changed. He was convinced that no good would come to the home industry if Nova Scotia was to be made the base of the fishing operations, which would be the certain result if Canada relaxed her present laws. This was strange language for those two doughty champions of American

fishing rights. I reminded both gentlemen that the three thousand fishermen, or more, were all eager to profit by a chance to touch and trade in Nova Scotia ports, while the Boston and Gloucester outfitters, a dozen firms or so, were afraid of losing the custom. Those republican politicians thus stood convicted of ranging themselves on the side of the capitalists against the working class. But they would retract nothing.

I deferred my intended second article while things were in this posture, for I wished to see what the outcome would be like, in order to discuss that, at the same time. But no progress has been made lately, and nobody seems to know what caused the halt. It is credited, however, to Digby influence alone. And the boom at Prince Rupert still goes on, demonstrating in a practical manner what I aimed at describing in these letters—"the building up of a fish business." The Canadian Fisherman verified it by telling last month of seven car-loads (or seven trains, I forget which) of fresh halibut moving east from Prince Rupert, destined for England and the Provincial markets. Think of the growth of that city as the fisheries emporium of the Pacific! Five years ago, the foundation for such phenomenal prosperity was not even laid. The rapid building began this present year, with the influx of the foreign keels and the free landing of their halibut fares for the local firms to handle. Now contrast Shelburne, for instance, with its peerless harbor and proximity to the swarming fish-grounds. A century and a half—almost—has passed over its head, since it was first laid out on a city plan, by royal favor, and peopled accordingly, with every opportunity to enlarge its bounds and increase its wealth by working up the fisheries to the full. It did boast a fleet of bankers once, in the palmy days of the Washington treaty, when alien fishing craft had free access, but scarcely a native mast enlivens its waters now. Sandy Point, at the harbor-mouth, is doing a hustling fish business, but the chief transactions, and the most profitable at that, are with the American vessels which make that point their headquarters on their haddock trips. Two weeks ago an article in the Shelburne paper mentioned this traffic as a great thing for the locality, yet only last spring the same journal declared there was two sides to the modus vivendi question, and more than one townsman of note dead against any extension of privilege, to strangers.

I purpose telling, in a briefer note, if the editor lets this rather long account pass muster, how the baiting question worked out this fall in western Nova Scotia harbors. There was a humorous side to that incident, in very deed.

M. H. NICKERSON.

GOOSEFISH---A WHOLESOME FOOD

American Fishermen Throw Away 10,000,000 lbs. of a Valuable Foodfish Annually.

The United States Bureau of Fisheries has, for a long time, been carrying on a campaign of education through experiments and bulletins to teach the people of the United States some things they do not know about fish. Its latest effort, says the "Forecast Magazine," has been directed to the goosefish which is found in practically inexhaustible quantities along the Atlantic coast.

Every year fishermen throw away about 10,000,000 pounds of goosefish, and yet that fish has a higher nutritive value than the cod. On trawl lines and in nets, along with cod, haddock and other fish in general use are taken some 400,000 goosefish, or anglers, or monkfish, as they are sometimes called, weighing on an average twenty-five pounds each, and yielding steaks containing flesh-building material equal pound for pound to sirloin steak.

In Europe the goosefish is highly valued. It abounds in the North Sea and the other waters of western Europe, and is caught in the otter trawl and line fisheries. In former years it was discarded as worthless, but now the yearly consumption amounts to millions of pounds. More than 35,700,000 pounds of goosefish were sold in the United Kingdom in one year, and large quantities are caught and sold by the fishermen of Germany, Holland and other countries on the east shore of the North Sea. In the larger cities of Germany the fish has been a favorite for many years. Its value has never been recognized in this country, and it is at present entirely a waste product. The fisheries bureau is trying to stop the waste, and has pointed out that the goosefish would not only be a source of profit to fishermen even if marketed at a minimum price because of its abundance and the lack of effort in taking it, but would constitute a cheap and wholesome food for the consumer.

The largest catch of goosefish is made by vessels in the fresh-fish trade using trawl lines and frequenting grounds off the New England coast. There are about one hundred and fifty such vessels, each of which makes twenty to thirty trips a year. This fleet takes approximately 300,00 goosefish, having an average weight of twenty-five pounds, or 7,500,000 pounds in the aggregate.

Many are caught by the numerous gill net vessels sailing out of various New England ports, and by the small fleet of steam otter trawlers making their headquarters at Boston. In the pound-net and trap-net fisheries of the coast, especially between Massachusetts and North Carolina, there is a very large catch of goosefish throughout the season. From information obtained by the federal government from various sources it is estimated that the yearly take in these minor fisheries is not less than 75,000 goosefish, weighing 1,875,000 pounds.

Analysis made by the Bureau of Fisheries and by the Bureau of Chemistry of the Department of Agriculture, of samples obtained from Boston, made evident that the food value of the goosefish is high. The edible portion contains more protein than the flounder, slightly more than the cod, and a little less than the halibut, and considerably less than the sirloin steak. A pound of goosefish, however, would contain quite as much protein as a pound of sirloin steak as cut, for only seventy-five per cent of the latter would be edible, while about ninety per cent of the pound of goosefish is solid food.

The Bureau of Fisheries realized that it must create a public demand for the goosefish before it can make its appearance in the market, and to that end has taken up the matter with influential men along the Atlantic Coast, and is working through them to do everything possible to direct the attention of the public to this valuable food.

Obituary

CAPTAIN JOHN D. APT.

One of the best known and most popular of the Nova Scotia fresh fishing skippers, Captain John D. Apt, of Port Wade, N.S., died on Tuesday, October 12, following an operation for appendicitis at the General Hospital, St. John, N.B.

Captain Apt was born 48 years ago at Waldeck Line, Annapolis County, Nova Scotia, and at twelve years of age went to sea in coasting vessels. After a few voyages to the West Indies, he shipped in fishing vessels out of Digby and fished under Captain Howard Anderson of the latter port. One of his first dorymates was Captain Arthur Longmire, of Hillsburn—a well known skipper of the present day.

After a few years as a practical fisherman, Captain Apt commanded a number of Canadian and American fishing schooners, among them being the "Jennie B. Thomas," and "Samuel R. Crane," in which he made many successful trips. In 1908, the Digby schooner

"Albert J. Lutz," was built for him by McGill, of Shelburne, and Capt. Apt. commanded her until a few days before his death.

He was famous as a smart sailorman, and under his able hand the "Lutz" created a reputation for fast sailing and seaworthiness in heavy weather. In the "Lutz" he engaged in fresh fishing, haddocking, salt fishing and halibuting. In the latter fishery, he was the pioneer of the Anticosti halibuting among Canadian fishermen, and made halibuting trips to the Gulf of St. Lawrence for the last four summers. In 1913 he brought in the high line halibut trip for a Canadian Atlantic halibuter—landing 82,00 pounds at Canso. The Editor of the CANADIAN FISHERMAN was his shipmate on that voyage.

In 1908 he piloted the schooner yacht "Valmore" from Digby to Chicago, at the request of Mr. William Hale Thompson—now Mayor of that great American city. As a sailing skipper he showed his ability by winning the Brittain Fisherman's Cup in the "Lutz" at the Western Nova Scotia Regatta in 1912.

Captain Apt was a genuine type of Nova Scotia sailor-fisherman, and was a man universally beloved. He was a splendid pilot and nobody could teach him anything in handling a vessel. During his life at sea he had come through many tough experiences, but his rare seamanship stood him in good stead, and he never lost man or vessel. He was a prominent Mason and a member of King Solomon Lodge, Digby, also of Court Admiral Digby, I.O.F. In yachting circles he was an active member of the Western Nova Scotia Yacht Club, and during a visit to Montreal two years ago, was elected an Honorary Member of the Hudson Yacht Club.

Among the fishing fraternity of Nova Scotia, his untimely death has left a blank which will be hard to fill, and we have the melancholy task of recording the passing away of one of the best of the Nova Scotia fresh fishing skippers.

RUSSIANS NOW CANNING SALMON IN KAMSCHATKA.

Kamschatka salmon canneries have this season put up 150,000 cases of fish, of which output humpbacks accounted for 120,000 cases. Red salmon were few in number, the total pack of these fish amounting to 30,000 cases. Russia has proven a gold mine of a market for the pack, and humpback salmon bought at two kopeks or one cent each have been delivered to the Russian War Department for a lump price of $6 a case.

Oscar B. Knorring, an American cannery expert, returned to Seattle recently on the Nippon Yusen Kaisha liner Aki Maru, after a year's work on the Kamschatka coast, and in speaking of the season's fishing on the northeast coast of Asia, said on the whole the season has been a profitable one for cannerymen and salt fish packers.

"I went out to put in a canning plant for a Russian company," he said, "and while we were handicapped for help, we put up 80,000 cases of humpbacks and 5,000 cases of red salmon.

"Most of the set fishing is done by Japanese fishermen, who were granted the privilege of fishing in Kamschatka waters after the Russian-Japanese war. They are not permitted to fish in the rivers, and there is where the Russians chiefly operate. This is the first season the Japanese have operated their canneries without foreign assistance, and they managed them very successfully.

"These canneries put up codfish in tins as well as salmon trout, and all varieties of salmon found there.

"The run of humpbacks was very heavy this year, although there were but few red salmon to what was anticipated. The Japanese also salted about 50,000 tons of salmon for the Japanese market.

"The people of the village where our plant is located all made money this season, the average profit of the men being 800 roubles, and the women 400 roubles. They are, however, a hard lot to deal with, being chiefly of the Russian criminal class. Since the stopping of the sale of vodka, Japanese have taken advantage of the 'booze' shortage. Small Japanese vessels bring alcohol all along the coast, and this finds ready sale among the Russians, who have been deprived of their accustomed vodka."

The Fishing Industry in British Columbia

Tremendous Coastline of British Columbia Affords Protection and Feeding Ground of Large Extent.

(By D. N. McINTYRE, Deputy Commissioner of Fisheries, British Columbia, in the Winnipeg Commercial.)

The sinuosities of the coast line of British Columbia, comprised between the 49th and 55th parallels, have been reckoned as over 20,000 miles in extent; the main indentations alone more than total 7,000 miles. The mainland is deeply indented with hundreds of fiords of great length; the waters of these fiords are deep, and to them nature has offered effective shelter in opposing to the winds and storms of the Pacific a barrier in the series of archipelagoes included in the Vancouver Island and Queen Charlotte Island groups. The area of waters so enclosed, comprising the great gulfs, straits, fiords, inlets and canals, termed by mariners the Inner Passage, embraces the most extensive spawning and feeding grounds in the world for halibut, herring and numerous other food fishes.

From fifty to one hundred miles west of the main islands of these archipelagoes the continental shelf drops off to extreme depths, but from that margin inward and eastward the ocean bed forms a plateau at from twenty to two hundred fathoms. This plateau forms the great feeding and spawning banks for many varieties of fish.

Ocean Currents and Tidal Drifts.

Ocean currents and tidal drifts have an important influence upon fish and the food of fish. The North Pacific or Japanese Current, striking in easterly along the 50th parallel, divides as it reaches the continental shelf, one branch sweeping north, to be turned due west again where that shelf runs out once more into the Aleutian Archipelago; the other branch flows south as the California current, and forms a settled drift about fifty-five miles west of the Vancouver Island shore. These currents play to the coastal waters of British Columbia a part exactly similar to that of the Gulf Stream in its relation to the North Sea, whose limited waters have proved so rich in fish life as to feed for centuries a large portion of the population of northwestern Europe.

While nature has formed an ideal spawning and feeding ground for fish in these central waters, another notable fact is that the chief rivers of the Pacific take their rise in the watersheds of the Province—the Fraser, the Skeena and the Naas flowing entirely through Canadian territory; the Columbia and the Stikine taking their rise within, while they debouch beyond its boundaries. This is, of course, closely correlated with the fact that the network of lakes which form the sources of these great rivers are, with the exception of the Great Lakes, the largest on the continent.

The importance of these latter facts in their relation to estuary-fishing must be regarded. It has been largely the richness of the estuary fishing that has prevented or delayed the exploitation of the equally rich waters that wash the coasts of the Province. It was the ease wiith which the salmon were taken in these straightened passes that diverted attention from the fisheries of the ocean.

The Salmon of Commerce.

While British Columbia is beginning to recognize the value of its fisheries, it is true also that the earliest industry, the fur trade, was largely possible because the rivers of the territory afforded abundant food for the Indians, half-breeds and white who pursued the fur-bearing animals. A glance at the journals of any post of the Hudson's Bay Company will reveal the extent to which dried salmon was relied on to sustain the employes during the year. Thus, chiefly because the salmon or estuary fishing was the most accessible, the history of British Columbia fisheries has been largely that of the salmon fisheries.

The total value of the fisheries of the Province nearly equals fifty per cent of that of the entire fisheries of Canada. In 1913 they totalled approximately fourteen and one-half millions of dollars; 1914 showed a slight falling off, while it is expected that the present year will more than exceed either of the two preceding. The salmon pack, as before stated, constitutes the chief factor of the total. In 1913 it was valued at nine and one-half million dollars, in 1914 approximately nine million dollars. Halibut comes next in order with an annual production ranging from two to two and one-half million dollars in value.

A matter perhaps of interest to visitors is the fact that the fish which now is the salmon of commerce, whose rich red meat is so well known throughout the world in the canned article, was misnamed the salmon in the first place, and was not really a salmon at all. When settlers came to the Pacific Coast they noticed great quantities of a fish approximating in form the Salmo salar of Scotland, and the eastern Canadian coasts, and they named it salmon with the development of the canning industry. When the canned article found its way to every corner of the globe the supplanter retained the name and is now undoubtedly the salmon of commerce. It is radically different in its habits and characteristics from the eastern salmon, its chief difference being in the fact that when it reaches maturity it spawns and dies. No Pacific Coast salmon spawns twice. A fish more nearly alike to the Atlantic Salmo salar is our Steelhead trout, and many confuse it with the Pacific salmon.

There are five varieties of this great food-fish on the coast, the quinnat or Spring salmon, which spawns normally in the fourth, fifth, sixth or seventh year; sockeye, the chief canning fish, which spawns normally in its third year; the pink salmon or humpback, which reaches an age of two years, when it spawns and dies; and the dog or chum salmon, which may spawn at the third, fourth or fifth year.

Sea Lion a Maligned Creatture.

Evidence is accumulating to prove that the sea lion does not prey on the salmon schools of British Columbia waters, that he does not go in for a salmon diet, and is, consequently, a much maligned creature.

Mr. Hamer Greenwood, Vancouver, manager of Skeena River Fisheries, Ltd., and secretary of the Sea Lion Commission, has been making an extended investigation of the question, and has obtained opinions from experts all over the civilized world, most of them tending to show that the foregoing is true.

Mr. Greenwood is in receipt of a letter from Dr. Barton W. Everman, director of the California Academy of Science at San Francisco, calling his attention to the fact that the late Professor L. L. Dyche of Kansas University, who spent months studying the habits of the animals on the California coast, finally submitted a report saying that the lions live almost exclusively on squid and eat little or no fish.

Expert opinions are also contained in the letter from such famous biologists as Prof. E. C. Starks, Mr. Schofield, of Stanford University, and Mr. Cloudsley Rutter, of the Bureau of Fisheries at Washington, corroborating the statements of Professor Dyche.

Halibut and Salmon at Vancouver.

Between July 25 and August 25 eighteen fishing vessels delivered a total of 1,099,000 pounds of halibut at Vancouver, two fares of 85,000 lbs., and 115,000 lbs. being handled by the New England Fishing Co. In all there were eighteen cargoes, the fish being taken off Hecate Straits banks, in the far North.

Four halibut cargoes not enumerated in the above were delivered to the Columbia Cold Storage Company's plant at Steveston, near the mouth of the Fraser, during the same period. The four fares aggregated 354,000 lbs.

The pack of sockeye salmon at the canneries on the Fraser River up to the middle of September was about 75,000 cases, or about 17,000 cases in excess of the pack for the season four years ago.

Northern Alberta Fisheries Being Developed.

The port of Prince Rupert has had a record month during August on the amount of fish landed at that centre. While the salmon end of the industry was the largest part of the business, halibut showed up well, with 2,106,400 pounds landed at that port. This brings the city well to the front among the fish ports of the Coast. Prince Rupert is now in the premier place in this respect.

The salmon pack for the month represented 12,999,700 pounds of fish, representing at a modest valuation well on to $750,000.

Of the salmon catch, 4,068 hundredweight was used fresh or shipped fresh. There was about 223 hundredweight that was mild cured, while the remainder was canned. In the canning process 149,527 cases were taken care of during August.

There were 14,000 pounds of cod taken and used fresh. Flounders represented 1,000 pounds and crabs 400 pounds.

Taken altogether, there were 15,121,500 pounds of fish handled at that centre during the month.

Northern Alberta Fisheries Being Developed.

Notable developments are taking place this Fall in the fisheries of Western Canada. The announcement is made by the Grand Trunk Pacific authorities that white fish is now being shipped in carloads from Lesser Slave Lake, in Northern Alberta, to Chicago.

The construction of the Edmonton, Dunvegan & British Columbia Railway northward from the main line of the G. T. P. has made this lake accessible and in its waters are great numbers of fish. Two companies have been formed to carry on the fishing in the lake, and the Canadian Express Company is being called upon to supply special refrigerator cars to take the fish to Edmonton and thence by way of the Grand Trunk Pacific to Winnipeg and by connecting lines to Chicago.

A great distributing point for fresh fish, the Chicago market states that it can take all the white fish that can be sent from Western Canada and the transportation companies, it is expected, will have to enlarge their arrangements next year to meet the growing traffic.

ADDRESSING OF MAIL TO SOLDIERS ON SERVICE.

In order to facilitate the handling of mail at the front and to insure prompt delivery it is requested that all mail be addressed as follows:—

(a) Regimental Number .....
(b) Rank .....
(c) Name .....
(d) Squadron, Battery or Company .....
(e) Battalion, Regiment, (or other unit) Staff appointment or Department .....
(f) CANADIAN CONTINGENT .....
(g) British Expeditionary Force .....
(h) Army Post Office, London, England .....

Unnecessary mention of higher formations, such as brigades, divisions, is strictly forbidden, and causes delay.

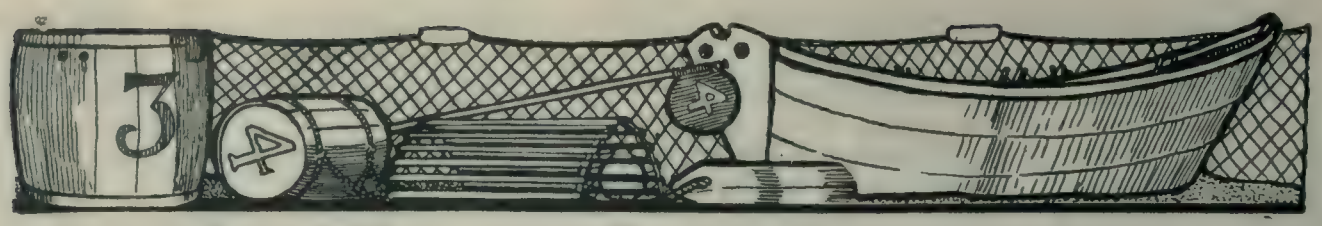
NEW FISH FREEZING METHODS.

The use of fish as food is increasing because of a shortage in the supply of meats, and, therefore, methods of keeping fish in good condition are interesting. Some new ideas have recently been suggested which may come into general use, and anyway are worthy of the attention of all students of refrigeration.

The first method considered is that of freezing fish by immersion in cold brine. In this scheme the fish are simply placed in brine for freezing, and they do not absorb brine as might naturally be inferred. Whether this can be made to work out or not has not as yet been demonstrated, but the idea is certainly an appealing one for the reason that rather higher brine temperatures than are commonly employed can be utilized.

Another method of freezing is to place the fish in cans similar to those commonly used in the manufacture of ice. A brine temperature of 10 deg. F. will do good work with this method if the cans are not larger than 100 to 150 pounds capacity. This process is said to be economical of refrigeration as well as being extremely practical in service. The cans contain, of course, a certain portion of water and when frozen the cakes of fish can be handled and stored exactly as ice would be handled and stored under refrigeration at a temperature of about 25 deg. F.

Whether these two processes, both of which have originated in Europe, will come into commercial use or not remains to be seen, but they are certainly worthy of consideration and trial. Any improvement leading to a more direct application of refrigeration to the work to be done will result in quicker work and lower cost of freezing.—"Cold,' Calcium, N.Y.



THE ATLANTIC FISHERIES

NEWFOUNDLAND.

(From Our Own Correspondent.)

A SERIOUS OUTLOOK.

September 1914 will be written down as one of the stormiest periods in the history of our fishing industry; for practically nothing has been done either by shoremen or by Bankers since the end of August. The weather has been absolutely unfavorable for fish-making, and the loss to the trade and to the fishermen will be enormous. Every week since the beginning of the month we have reports of serious damage to fishing gear, and from Labrador comes a report of several losses; but, happily, few losses of life have been recorded.

The fishery on the coast of Labrador is one of the worst ever recorded, and whilst some "up-the-shore" fishermen have fared fairly well, the "floaters" are reported for very small catches. Your correspondent has recently visited the coast, and from personal observations the statement is made that less than 100,000 quintals have been caught between Nain and Battle Harbor. Early in the season the fishery on certain parts of the coast promised well, and fishermen in the Straits of Belle Isle—from Chimney Tickle to Bonne Esperance secured saving voyages. The average catch for traps on the upper part of the coast is less than 200 quintals; northward, it is less. Floaters will not average 175 quintals. The seriousness of this situation may be guaged when it is understood that about 600 vessels are engaged in the northern fishery. Few "loads" have been reported, and these loads were secured below Cape Mugford by skippers who ventured to the far north fishing grounds, and remained there till the end of August.

Carriers will find it difficult to secure cargoes, as, in addition to shortage in the catch, the weather has been unfavorable for curing the voyage.

The Labrador fishery now presents a formidable economic problem, and something must be done to protect the supplier from financial disaster. The custom from time immemorial has been, that merchants issue "supplies" to "dealers" to enable them to prosecute the voyage. The outfit in some cases assumes large proportions, as, in addition to providing the salt, twine, provisions, etc., the supplier becomes responsible for the wages of the "shipped" men and women who are engaged by the dealer. It is understood by the supplier that the proceeds of the voyage will be "turned in" to the credit of the risk, but it seems that in many cases this is not now being done.

Naturally, one will conclude that this spells dishonesty on the part of the fishermen, but when the whole situation is viewed, this conclusion is not warranted by facts. Previous to this year, dealers on the coast shipped their catch on merchant's receipts, on which the sinister words "current price" were invariably written. At the wind-up of last year's (1914) voyage, a dealer sued a supplier for the "highest price paid on the coast"—this he contended being the meaning of "current price." A decision was handed down by Justice Emerson, of the Supreme Court, to the effect that this was not the case, and that "current price meant the price fixed by the fish exporters. At least, this is a summary of the judgment. The evidence in the case was quite voluminous, and it was watched with great interest by all concerned. The ultimate result of this judgment is that fishermen will not now ship fish on the coast unless the price is actually marked on their receipts. At the beginning of the shipping time $4.00 per quintal was offered to dealers—this being the price "fixed" by the exporters at St. John's. Fishermen refused to accept this, acting under advice from Mr. Coaker, president of the F. P. U. Then began the gamble, and it seems that the dealer is selling fish just where the best price can be obtained.

That Mr. Coaker was warranted in giving this advice to fishermen on Labrador has been borne out by facts, and at the moment, $5.60 is being paid for "Labrador Cure." When the exporters were offering $4.00 on the coast, the same persons were actually paying $4.90 for a similar grade of fish in Newfoundland ports. The result is that a feeling of distrust exists between the supplier and the dealer which must have disastrous results to the former.

The whole Labrador system must be changed if the fishery is to be continued. Confidence must be restored between the merchant and the fisherman, and only then will mutual advantage result. The "supply system" will have to be abandoned, and the fishery conducted on a cash basis. Of course, there are serious difficulties ahead before this adjustment can take place, but unless the old system is abandoned, the Labrador fishery is doomed to extinction.

To illustrate the shortage in the Labrador fishery we take the years 1908 and 1914. In the former year, 288,826 quintals of codfish were exported, valued at $779,858. The complete returns of Labrador trade for 1914 are as follows:—

Dry codfish, 91,049, valued at $361,448.00.
Salmon, 791 trcs., 382 brls., valued at $15,712.
Trout, 8 brls, valued at $40.00.
Cod Oil, 200 gals., valued at $50.00.
Seal Oil, 7½ tuns, valued at $525.00.
Feathers, 150 lbs., valued at $18.00.
Hardware (not specified), valued at $95.00.
Furs, valued at $18,600.00.
Total, $396,488.00.

Fish Shipments.

Only two vessels have so far been reported as having sailed from the coast of Labrador, but a small quantity of cask fish (4 qtls.), has also been sent via St. John's. The largest shipment has been made by Ryan & Co. from Batte, billed to Piraeus, where the demand is good. It is only recently that shippers have gone into the cask method of shipping. But it is likely to be more extensively used in the future, as carriers are not easy to secure.

Two large shipments have been made from St. John's by the steamers "Neptune" and "Boethic" to Mediterranean ports, for distribution. It was feared that carriers would be short this season, but recently, several Danish, Norwegian, and French vessels have arrived at St. John's and Labrador ports. One steamer—the "Fagerton" (Norwegian) is loading for Munn and Templeman at Flat Islands and Indian Tickle. She is chartered for 12,000 quintals, but it is decidedly difficult to collect fish from outlying harbors, so it will be some time before the cargo can be secured. Munn and Templeman are very large shippers, and their collection will approximate about 30,000 quintals, almost one-third of the entire catch on the coast. Shipments to Oporto and Brazil are being made as rapidly as conditions make it possible to load, and the markets in both places are still keeping good. Very little fish, however, is arriving from the outports, and most of the exporters have collectors gathering in the harvest. Weather conditions are unfavorable, and owing to the steady advance in prices of various grades, fishermen are not anxious to dispose of their holdings. The Trade Review in an editorial note to-day states that never before were so few outport fishermen in St. John's with cargoes of fish. Fine weather will possibly bring a change, and it is feared that there will then be a congestion which may cause fish to decline in price.

The following figures of exports for September were posted yesterday at the Board of Trade:—

To Europe.....30,856 qtls. dry codfish.
To Canada..... 1,600 " "
To United States. 5,287 qtls. salt bulk codfish.
To Canada..... 100 " " "
To England..... 4,800 " " "
54 brls. dried caplin.
300 cases lobsters.
25 brls. salmon.
40 casks cod oil.

From St. John's:

To Brazil.....27,785 qtls dry fish.
To Europe.....51,807 "
To West Indies.. 8,638 "
To Unit. Kingdom 2,300 "
To United States. 891 "
To Canada..... 19 "

Also 715½ tuns cod oil, 18 tuns seal oil, 185 trcs. salmon, 33 brls. salmon, 4,138 brls. herring, 282 brls. turbot, 10½ cases caplin, 508½ cases lobsters, 433 brls. trout.

Market quotations, October 5.:—

Codfish, shore	$6.50
Labrador	5.40
Haddock	3.50
Herring, per brl. large	3.00
" " Medium	2.50
Salmon, trc. No. 1	12.00
Small	10.00
Cod oil, tun	120.00
Cod liver oil, gal.	1.20

Bank Fishery.

The Bank Fishery, which promised well, has had quite a setback, owing to scarcity of squid bait and stormy weather. During the month of August, owing to the scarcity of squid, several vessels from Burin District and from Fortune Bay went down to Labrador with jiggers and gill nets. None of them secured any fish; some of the fleet returned early in September with only 10 quintals. The only vessel which had a supply of bait—the "Metamora," Captain John Lewis, secured a good trip—some 600 quintals—at Indian Harbor. Captain Lewis reported fish fairly plentiful, and, if he had had a good supply of bait, he would have secured a load. Captain Lewis has now reached the 4,000 quintal mark, and he will likely round up the voyage at Cape Pine. The skippers who started out with gill nets report unfavorably on their use, but as they had not an opportunity to give them a fair trial, they still believe that gill net fishing would prove a profitable venture under favorable conditions. The Bank Fishery is about 25 per cent ahead of last year.

For the past two seasons squid bait has been unusually scarce, and some measures must now be taken by our Government to secure it when plentiful. It is hoped that a cold storage plant will be erected somewhere on the south coast, which will enable the Banking fleet to procure bait when needed. Just now squid are reported fairly plentiful in Placentia Bay, and provision is being made to stock a quantity of salt squid for use in the winter fishery which opens in January.

Several casualties have been reported from the fleet during the season, some of which we have already reported. The casualties to date number 21, inclusive of the crew of the Marion of St. Jacques, which disappeared during the month of August. There is a sinister rumor regarding the disappearance of this vessel, and it is likely that an investigation will be held when the vessels whose crews have made the statements to which we refer, will have returned from the fall trip.

The Storm Fiend.

A report by Marconi from Labrador says that in the recent gale four vessels were lost at Sloop Harbor, and that others were ashore at various parts of the coast. The wrecked vessels were returning from the northern fishing grounds, and some of them had small trips of fish. The crews have been taken care of by the Relieving Officer, and will be sent to their homes by the "Erik" or the "Sagona," which are now on the coast on regular service. The loss to these fishermen will be considerable, as it is stated that none of the vessels or cargoes were insured. The stormy weather means a rather early winding up of the voyage. Had fair weather prevailed, several thousand quintals of fish would have been taken on the upper part of the coast during September. Northern Newfoundland ports have also been seriously affected, and practically no fishing was done during the month of September.

Steamer Shipments.

Owing to difficulty of securing sailing vessels as carriers, several steamers, in addition to the "Neptune" and the "Boethic," will be employed to bring fish to Brazil and Mediterranean ports. Two arrived recently at St. John's—the "Giorgia," and the "Fontier." Both will load as soon as weather conditions

permit. As we stated some time ago, several Norwegian steamers were formerly engaged in our fish trade; but since the outbreak of the war they have gone into what seems to be a more profitable business—the carrying of pit props to West-of-England ports. This industry has now assumed large proportions, and already some eighteen steamers have been engaged in the trade.

The Herring Trade.

Considerable discussion is now being carried on in the local press regarding our herring trade, and the outlook for the coming season is cheerful. Herring are now reported from the Labrador coast, and some small takes have been made around Black Tickle, Batteau, and at Murray's Harbor. This is the first notice of the return of herring to the coast, and shippers are already getting busy for what promises to be a lucrative industry. Herring disappeared from Labrador about twenty-five years ago. Labrador herring, as is generally known, are the finest in the world, and the Labrador herring-fishery in olden times was one of our greatest industries. Owing to carelessness in packing and other local causes, these fish never fetched the price to which they were entitled, but under new conditions, we hope to put up the finest article possible.

The herring fishers on the West Coast are already getting busy for the fall fishery, and there arrived recently from Scotland, a Mr. Flett, who is going into the business on a large scale. He will, so it is stated, also operate in Placentia Bay, and our herring fishermen will likely obtain better prices for their catches than in former years.

That we are beginning to realize the value of our herring fishery is evident from the efforts being made by Mr. J. H. Dee, Inspector of Fisheries. His report for 1914 is very interesting, and he says: "We have in the millions of herring surrounding our coast in the various bays and arms, a national wealth which is waiting to be utilized, and whilst it would be impossible to show any great improvement, yet, if we begin at the bottom of the business at once, and apply ourselves to the task of instructing the individual fisherman, who is catching and packing herring on his own premises, much good will result. A proper standard of package and pack should be introduced immediately, and the herring thoroughly graded Nos. 1, 2, 3, of spring, autumn and winter herring. The next step should be the repealing of the present laws on our Statutes regarding the catching of herring, as if they are allowed to remain as at present, they will always act as a complete block against the development of this valuable industry.

"Therefore, every effort should be made to afford the fishermen the instructions necessary, by personal interviews, where possible, and the issuing of circulars and pamphlets, together with some system of advertising the Newfoundland packed herring under its own special brand."

Mr. Dee then institutes a comparison between our herring industry and that carried on in Scotland, and says: "In the report of the Scotch fishery Board, 1913, it is shown that there were 1,886,596 barrels of herring packed in that year (our herring shipments amounting to only 73,854 barrels, valued at $219,061, average value $3.10 per barrel). The value of Scotland's herring pack was £2,914,711. The total quantity of herring exported from Scotland for the year was 1,410,937 barrels, as follows:—

672,701 barrels to Germany; 619,680 barrels to Russia; and 104,045 barrels were sold to our American neighbors, at an average of 36 shillings ($9.00), whilst the highest price paid for ours was $3.10), notwithstanding the fact that our herring are equal, if not superior, to the Scotch pack. The herring of Scotch and Norwegian pack have been brought to a high standard by the thorough and scientific methods employed in treating the herring, and by a strict system of inspection and branding by recognized officials, and a name has been established for these herring in the different trade markets by Trade Agents, who, while ever attending to their old customers, are, at the same time, looking for new ones."

The Whale Fishery.

The "Cachalot," which is chasing the leviathan off the south coast of Labrador, is reported for 50 whales, with every prospect of securing a saving catch. From Mr. Sullivan, manager of the Hawke's Harbor whaling plant, we learn that the whales taken by his steamer are of small size, and the yield of oil is not large. By last "Sagona," 400 barrels of oil were shipped to St. John's, and will be forwarded to Great Britain presumably by net sailing of the Furness-Whitty steamers. We have no official report from Rose-a-Rue Whaling Station, but the catch has been very small. Whaling seems to be no longer a desirable enterprise.

The total number of whales caught last season (1914) was 161, chiefly finbacks; this year, it is doubtful if half that number will be reported. Last year's yield of oil was 150,146 gals; bone, 80⅛ tons; guano, 256 tons, and seven plants were in operation. It is quite probable that only one factory will operate next season. Hundreds of thousands of dollars have been lost by small investors in whaling stock, and former prosperous stations and plants are now a-begging for purchasers.

The Lobster Fisheyry.

The Inspector of Fisheries estimates our lobster catch for 1915 to be about 6,000 cases. About 3,000 cases have already been shipped to Nova Scotia, principally to Halifax, from the section of the coast (south and west) from Flower's Cove to Burin, the price in nearly all cases being $12.50. About 1,500 cases have come from the rest of the coast to St. John's, and about 1,500 cases are due to arrive. These presumably are being held by fishermen with the expectation of a rise in price. It is thought that these late lobsters will fetch, according to quality, from $13.00 to $13.50. The latter price was paid some days ago for a consignment from the south coast by a shipper who had an order for the English market.

Salmon.

We have no accurate statistics regarding the salmon catch, but it is much smaller than it was even last year. Some small shipments from northern Newfoundland and ports have come in, and the price is $12.00 for large. A fairly large consignment came from the Hudson's Bay posts of Cartwright and Davis Inlet by last "Sagona," and from the agents of the H. B. C. we learned recently that the catch was below the average. Newfoundland fishermen on the coast of Labrador had very small catches of salmon, as they were late in getting down, and the "run" had been over before they could get their gear into the water.

Notes.

The "Mail and Advocate" reports that two schooners which left northern Labrador ten days ago are

posted as "missing," and it is feared that both have been lost with all hands. These schooners, the "Gannet" and the "Gleaner," had secured loads of fish at Nachvack, and were caught in the great storm which prevailed on the coast recently. "Both vessels," says the Mail and Advocate, "were in company with Capt. William Winsor, and came around Cape Mugford together, but when the weather became menacing on Monday week, Captain Winsor sheltered at Ailik; the other vessels carried on, and it is now believed that they were lost in the terrific storm of that afternoon. Wreckage is reported from the Bras Shoals, and this is portentous.

"On board the 'Gleaner' were Captain Crocker's son, and his son-in-law. The crew comprised eight men, three of them married, and one woman."

The Board of Trade yesterday received a report from Lind & Couto, of Oporto, a report to the effect that they were in a position to handle further shipments of fish from Newfoundland, that their stocks were now very low and insufficient for their requirements, that no Norwegian fish was available, and that fish prices show no indication of declining. Further, that the market was strong notwithstanding the several cargoes which were due to arrive. This is very welcome news for the fish trade.

The Reid Newfoundland Co. reports that the steamer "Erik" is returning from the coast with several wrecked crews. These presumably are crews of vessels which were lost in Monday's gale at Sloop Harbor.

DIGBY, N.S.

(From Our Special Correspondent.)

The outstanding feature in the fishing industry of this vicinity during the past six weeks has been the scarcity of haddock, the fish that is most wanted by the producers on account of the growing demand for Finnan Haddies at this season of the year. As the weather becomes cooler the demand for this article becomes stronger, until it weakens again with the rising temperature of the spring; the demand is also felt to slightly slacken during Christmas week, while Canadians generally are paying homage to the turkey. The principal cause of the scarcity this season was unfavourable fishing weather. Just recently the shore boats have been finding some haddock, but not abundantly by any means, and what are being landed are running unusually small.

The clam season is drawing to a close with this year's business a comparative failure; the shipments amounting to about one-sixth of the output of the average year. The poor demand from the United States is chiefly responsible for the slackening in this industry, as their markets are being supplied by a greater production of clams in that country.

On October 12, 13 and 14 the flags of the schooner Albert J. Lutz, Western N. S. Yacht Club, Maritime Fish Corporation, and other places in the vicinity, were seen flying at half-mast for the genial and much respected commander of the "Lutz," Capt. John D. Apt, who passed away "on the long voyage" at St. John, N.B., on October 12. The death of Captain Apt has caused much sorrow among his many friends, and his memory will be cherished by all who knew him.

Much regret is felt for Capt. M. G. Crocker, of Freeport, who has been forced to remain inactive for the past six or seven months on account of severe illness. Capt. Crocker is greatly missed in Digby, where he was frequently seen, and we hope that he may be among us again in the near future. During his inactivity the auxiliary schooner Cora Gertie is being run by his son, Mr. George Crocker.

The shore fishermen are in hopes that the haddock are beginning to strike in permanently, as fairly good catches have been reported at Westport and Freeport at the mouth of the Bay, and the boats further up the shore are also getting more of this fish. The off-shore vessels also find haddock scarce, their trips being made up mostly of shack: i.e., cod, cusk, hake, pollock, etc. The off-shore landings for the past month are as follows:—

Oct.	lbs.
4—Dorothy M. Smart	66,219
6—Cora Gertie	9,690
9—Lila Boutilier	52,721
12—Cora Gertie	14,183
12—Dorothy G. Snow	34,450
19—Cora Gertie	44,183
20—Dorothy M. Smart	89,029

The following statistics are from the Fishery Overseer's report to the Department showing fish caught and landed in Digby county for the month of September:

	lbs.
Cod	312,960
Haddock	514,250
Hake	2,979,350
Pollock	72,500
Herring	821,500
Mackerel	24,400
Halibut	1,100
Albacore	8,000
Skate Wings	1,200
Mussels	2,400
Winkles	2,300
Clams, barrels	395

Fish shipped from this port only, during the month of September are as follows:—

134 barrels fresh fish (Canadian market).
42 cases fresh fish (Canadian market).
2,915 boxes smoked fish (Canadian market).
1,340 tubs dried fish (export to Brazil).
729 drums dried fish (domestic and foreign markets).
64 casks dried fish (for export).
64 barrels dried dulse (U. S. market).
327 barrels clams (U. S. market).
275 bags dried hake sounds (U. S. market).

ST. JOHN'S, NEWFOUNDLAND.

(From Our Own Correspondent.)

Today (October 15), the Board of Trade received by cable the following weekly report of the condition of the fish market at Oporto:—

Past Week.

	Quintals.
Stocks (Newfoundland)	166,685
Consumption	6,815
Stocks (Norwegian)	350
Consumption	Nil

Previous Week

	Quintals.
Stocks (Newfoundland)	14,980
Consumption	5,530

Stocks (Norwegian)	350
Consumption	120

The following comparative figures showing the catch of codfish in the different districts up to Sept. 25, were posted at the Board of Trade rooms Saturday, Oct. 16

District.	1915.	1914.	1913.
Ferryland	25,800	11,965	19,845
Placentia & St. Mary's	44,150	37,020	50,500
Burin	141,280	95,180	103,265
Fortune Bay	86,715	37,320	49,645
Burgeo & LaPoile	34,515	34,295	24,760
St. Barbe	11,545	12,165	18,925
St. George's	12,070	4,845	2,625
Twillingate	18,680	24,525	52,575
Fogo	13,770	7,840	55,000
Bonavista	36,260	44,435	57,520
Trinity	22,820	23,545	31,905
Bay de Verde	38,400	21,300	11,465
Port de Grace	2,920	2,600	1,905
Carbonear	2,755	19,00	7,310
Harbor Grace	7,075	5,803	8,220
Harbor Main	1,790	2,400	3,935
Straits	13,650	7,530	17,000
Total	514,195	374,668	470,400

A message from the customs official in Labrador dated October 12, to the Deputy Minister of Customs in Newfoundland, stated the following vessels had cleared from Labrador for Market:—

The Elizabeth, from Smokey, with 4,015 quintals of cod, shipped by Hiscock, for Gibraltar.

The M. Lloyd Morris, Indian Harbor, 4,550, Jerrett, Gibralter.

Elizabeth Bennett, Holton, 4,500, Hiscock, Exeter.

Hilda R. Grady, 4,000, McRae and Son, Gibralter.

M. A. James, Smokey, 3,846, Hiscock, Gibralter.

David Morris, Dark Tickle, 4,827, G. and M. Gosse, Plymouth.

Wm. Pritchard, Indian Tickle, 4,720, P. Templeman, Gibralter.

Elizabeth Pritchard, Domino, 4,800, Green and Bishop, Gibralter.

S. S. Fagertun, Flat Island, 14,370, Munn and Co., Gibralter.

Cariad, Black Tickle, 3,700, P. Templeman, Gibralter.

Besides these, the following shipments bring the total quantity exported from Labrador up to 87,387 quintals. Mabel Lloyd, 4,000; Mabel D. Hines, 3,700; Ellen James, 4,000; L. Riisdahl, 3,600; Maolin, 4,000; Elizabeth Elinor, 4,500. About fourteen ships cleared from different points since the first of the month, and most of them have sailed.

All qualities of codfish are advancing in price, Labrador (soft cure), has advanced this week to $5.70 per quintal, and in a few instances $5.80 was paid. The tendency in price is still upwards, and it is thought that $6.00 per quintal will be paid within a few days for this quality of fish.

No. 1 merchantable shore fish is quoted at $6.80, and in some cases $7.00 was paid this week—the price is still advancing.

Common cod-oil is quoted $120.00 per tun, only about half the summer's output has been shipped. The fishermen are still holding back for higher prices. Refined oil is selling at $1.30 per gallon, but very little is being offered for sale at that figure.

The codfishery in Newfoundland, Labrador and on the Grand Banks may be said to be over for this year, and the voyage on the whole is not even an average one, but the shortness in the catch will be made up to a certain extent in the very high prices prevailing for all grades of codfish.

The herring fishery season is now about opening up, and every effort is being made by merchants and fishermen to make the catch this season a banner one, both in the quantity and quality of the herring caught. The season is opening under the most auspicious circumstances—the prices offering are the best known for many years—the Newfoundland fishermen are better equipped than ever before for this fishery. Larger numbers of men will be employed, and the fish merchants are taking a deeper interest in this year's venture than hitherto—and could it be otherwise when it is known that as high as $20.00 per brl. has recently been paid in New York for Scotch cured herring. First reports from Bay of Islands, which may be called the home of the herring are most encouraging. Several American schooners have arrived from Gloucester during the past few days, and hundreds of herring have been set and some good hauls of herring have been made.

The fishery will also be prosecuted largely this season on the Northeast coast, particularly in Bonavista, Notre Dame, and White Bays. For some time the question of getting the season's catch of codfish to the different European markets was becoming most acute as there was no shipping available. The difficulty, however, has been overcome by our merchants chartering several large French vessels, which, for the want of crews have been lying up at St. Malo and other seaports of France the past season.

YARMOUTH, N.S.

(From Our Special Correspondent)

There is considerable activity all up and down the shores of Yarmouth county now, and this activity is increasing weekly. It is caused by the nearness of the lobster season, which opens on December 15—not many weeks away, and a vast amount of work to be done between now and then. Every indication points to an increased output of traps, and it will sure be some smart lobster which will be able to get by them all when they are in the crater. Quite a number of new boats—fast, speedy and handsome—have been built and will be fished this season. We have a great fleet of boats fishing from this and the adjoining two counties—Digby and Annapolis—a fleet which for general excellence and adaptability for the work they are engaged in, cannot be beaten. A few years ago, before motor-boats came into vogue, one could walk along the waterfront here, and even though not a fisherman, if he used his eyes at all, could name the ports the boats hailed from by the build. Clark's Harbor, for instance, favored a sloop rigged boat, very deep, quite wide of beam, and one which would take you round the world with no trouble. The Grand Manan boats were two-stickers mostly and light draught. Westport and Tiverton boats were of slightly different construction again. But with the motor boats there is very much of a sameness, still, they can be picked out by the build, and to the eye of your correspondent, the Digby county boat is a little slicker in appearance and finish than those of the other two counties. But all three counties put out a splendid class of boat–

adapted in every way for the business, especially for winter lobstering.

There is not likely to be any scarcity of bait this season, as the weirs have been taking immense quantities of herring. The coasting steamers have been taking barrels by the thousand and salt in tons for use in putting them up, and one or two of the lobster smacks have already gone into commission—a few weeks earlier than usual—carrying supplies to the islands.

Mackerel have continued to come forward in good numbers, the fall run having been exceptionally good. On the 13th of this month, the Halifax and Southwestern train brought in 965 barrels, which would be considered a very large shipment even in the height of the spring run. Swordfish and albacore kept up until quite late, too. One hundred and ninety-seven cases of the former and fifty-two cases of the latter—each case containing about five hundred pounds—have gone forward this month.

The local exhibition has taken place since my last letter, and, as usual, the fish exhibits required a microscope to find them. The Gateway Fish Company was the only concern with backbone enough to make a decent exhibit, and their booth was a very attractive one. There were about half a dozen individual exhibits of boneless fish and salt mackerel and herring—splendid exhibits of the kind, the fish being in perfect order and presenting a good appearance—but in a fishing county, what is half a dozen exhibits? Why can not the fishermen see that they will benefit themselves, the town and county, and the exhibition, by trying to do something in this line. Some have told me that the judging is not fair; I do not know whether this is so or not, but I do know that none of the judges are experts in fish, and I am positive that none of them could tell a bank cod from a shore cod, and I doubt very much if they could tell boneless cod from boneless haddock or boneless hake. I will admit there is one respect in which our exhibitions could be improved—that is in the appointment of judges who know something about what they are judging.

In my letter last May, I reported the drowning of two employes of the cotton mill who had gone out fishing in a dory. It may be interesting to know that the body of one of them—William Smith—came ashore two weeks ago, in a remarkable state of preservation, considering its long submersion.

Almost all of the Amero fleet have gone into winter quarters, and the crews are scattered. Captain John Simms, of the Eddie James, has taken the Loran B. Snow out of Digby, and the other skippers have gone home. Captain Simms will be back on the "James" again in the spring. This winter one or two of Amero's vessels will be re-built and will start their next season's work practically new. The McGill shipyard in Shelburne is already working on one vessel for Yarmouth.

The death of Captain John Apt, of the Albert J. Lutz, was heard of with deep regret here. The captain was well known and liked. Only two or three days before his death your correspondent was talking with him on the Gateway Wharf here, and he asked especially if I had heard from Fred Wallace (Editor, Canadian Fisherman), since his return from the Pacific Coast, and I was pleased to be able to tell him I had.

The exports for the month have been:

Fresh mackerel, barrels	2,889
Fresh Fish, cases	178
Fresh Halibut, cases	81
Salt Mackerel, barrels	319
Pickled Fish, cases	232
Fish Waste, barrels	212
Salt Herrings, barrels	935
Tongues, barrels	35
Cod Oil, barrels	96
Clams, barrels	100
Eels, barrels	52
Boneless Fish, boxes	1,700
Dried Salt Fish, drums	704
Fish Scraps, barrels	11
Sandfish, cases	197
Albacore, cases	52
Canned Lobster, cases	5
Tongues and Samds, barrels	8
Hake, casks	115
Hake, drums	200
Hake Samds, bags	462
Fish Bones, barrels	16
Fish Skins, barrels	9
Boneless Cod, boxes	2,372
Fish Clippings, barrels	6
Salt Codfish, drums	547
Salt Codfish, casks	158
Salt Cusk, drums	223
Salt Cusk, tierces	6
Smoked Halibut, barrels	1

For Cuba:
32 lrums Salt Codfish.
18 drums Salt Haddock.
For Porto Rico:
109 tierces Salt Codfish.
For Brazil:
440 tubs Dry Salt Fish.
791 drums Dry Salt Fish.

THE CHANTY MAN.

Where is the chanty man of yore?
(Heave ho, we're outward bound!)
Where is the chanty man of yore,
So versed in songs of deep-sea lore?
His time is swiftly passing;
(The wild winds roar!)
The chanty man is passing—
He'll sing no more.

Now man the capstan, sailors all!
(Heave ho, we're outward bound!)
Now man the capstan, sailors all,
The chanty man will heed our call
For one more song together,
(Now, heave and haul!)
In fair or stormy weather,
He'll heed our call.

Oh, sing us sailors "Mobile Bay,"
(Heave ho, we're outward bound!)
Oh, sing us sailors "Mobile Bay,"
Or "Whisky! Johnny!" (heave away)
And "Sally Brown" is pretty.
So sing, boys, sing!
All hands, a deep-sea ditty!
Now, let 'er ring!

Where is the chanty man to-day?
(Heave ho, we're outward bound!)
Where is the chanty man to-day?
Oh, let some merchant seaman say,
The while we sing together—
(Now, hands all round!)
In fair or stormy weather.
(We're outward bound!)

—BEATRICE BARRY, in the New York Times.

THE PACIFIC FISHERIES

(Special Correspondence.)

VANCOUVER NOTES.

The Steamer "Mariposa" was wrecked on Campbell Island while en route South, there is very little hope that she will be salved. As the "Mariposa" was one of the principal vessels engaged in carrying fish (fresh) from Alaska points to Seattle during the winter, her loss will be a serious hindrance to this trade during the coming season.

Capt. John A. Gott formerly of the Steamer "Manhattan" was brought to Vancouver last month suffering from a Stroke of Paralysis. Capt. Gott was brought down from Ktechikan on the Princess Alice and taken to his home where he is now progressing very favorably. There is every hope for his recovery.

The Steamer "New England" has recently had her over-haul at Vancouver. The vessel was dry-docked and her tail shaft drawn for examination. She also underwent her annual inspection.

The Schooner "Shamrock" broke her crank shaft while fishing off the West Coast of Queen Charlotte Islands. The vessel sailed to Prince Rupert for repairs.

The Steamer "Onward Ho" belonging to the Columbia Cold Storage Co. of Steveston, B. C., has taken off some of her dories and will operate during the winter with dories and as a Long-Line Fisherman.

Elmer Lewis, who was shot in the spine last winter on the schooner "Pescawha" and who has been paralyzed ever since, was the recipient of a fund which was collected among all of the members of the Halibut Fishermen's Union out of Vancouver. While the amount was not large, it will be enough to keep Mr. Lewis comfortable for some little time.

Mr. Samuel Z. Chesebro, of New York, is visiting Western Points in the interest of his Company. Mr. Chesebro while on the Coast purchased his firm's supply of frozen halibut and salmon for winter season of 1915-166.

Mr. J. Prince one of the old-time Vancouver Fishermen, has just received from the builders his new Auxiliary Fishing Schooner "Margalice". The "Margalice" was built by the Vancouver Ship Yards and is fitted with 20 H. P. Wolverine Engine. She will be operated with a Power Gurdy instead of using Dories. Her capacity is 15.000 lbs. of Halibut. She is now in her first trip and is expected to return to Vancouver shortly.

The schooner "Alliance No. 1," formerly the American schooner "Yukon," was recently put up for auction at Victoria, B.C., by the mortgagees, and was sold to Mr. M. P. McCaffrey, of Prince Rupert, for $244.00.

Qualla or Fall salmon have not yet put in an appearance to speak about. These fish are looked to arrive in very large quantities. What are showing up are either being frozen or else packed by the Japanese for the Orient in salt.

In previous years the surplus catch of Qualla Salmon in British Columbia have been put up in dry salt and shipped by the Japanese contractors to China, Japan and Siberia, and quite a large trade has been worked up for this dry-salted salmon. The failure of the run of Cohoes, Sockeyes and Humpbacks in Puget Sound in 1915 has had the effect, however, of causing the American Canners to pay very high prices for Canadian caught Qualla Salmon, the result being that the Japanese contractors have been unable to get the Qualla Salmon at a price which would enable them to put them up in salt. A few Quallas caught in out of the way places where they could not be transported to Vancouver, have been dry-salted, and these should bring very high prices when shipped to the Orient. In this connection it is interesting to note that huge quantities of Qualla Salmon have been shipped from the Fraser River to the American canners at Bellingham and Anacortes, Wash., the prices paid being the highest ever known in the history of the salmon canning business. The canners, however, will not make any money on the canned Quallas, the price of the poorer grades of canned salmon this year being so low that there is every prospect of the canners losing money.

Owing to the unprecedented fine weather that lasted right through the summer and early fall, and also to the scarcity of snow on the mountains, due to the fine winter, all fishing around Vancouver has borne out the fact that the fish business is one of great uncertainty. Fish of all sorts have been most scarce, and the waterfront has put in the quietest summer ever known.

Herring have been particularly scarce, and smokers have not been able to get enough to fill their orders for kippers. Even the fresh article has been most difficult to obtain at the markets. The same applies to cod and other fish.

The different runs of salmon have upset all calculations based on the cycles in which these fish are understood to move. All grades have been scarce and late. True, there was quite a run of Pinks, but nothing like what was expected. In addition to this, the American buyers forced the price up to limits that made handling of this fish other than in the fresh state, impossible. British Columbia had a chance that will perhaps never occur again. Salt Pinks are very scarce on the American market, the pack being the lowest on record. But at the prices asked for the raw article, it was out of the question to attempt to pack salt pinks here.

Owing to the short run of other red salmon, packers are now canning the cohoes, and paying prices that are considered very high. Eastern handlers of this grade frozen will not be able to get anywhere like the usual amount, unless they can pay more than usual for the goods. It pays anyone handling these cohoes to sell in the fresh state to the canners to-day.

Capt. Johannsen, of the Seattle halibut steamer "Chicago," was recently suspended by the United States Inspector for 30 days for running his steamer aground. His place was taken by Capt. Cantillion.

Without appearing to "knock" Prince Rupert as Vancouver is so often accused of, it seems that the Order-in-Council that allowed American fishing boats to land their catches at that port, has not done as much for the place as anticipated. True, the main bulk of the Seattle independent boats have landed their catches at Prince Rupert; but they are stated to show no inclinations to spend the money received at the place they sold their fish. The American port of Ketchikan is on their road to the fishing grounds, so these vessels pick up their ice and supplies at the American port. It is stated that endeavours are being made to extend the priveleges to American boats.

There is a feeling growing amongst the American packers that it was a great pity that Canada did not reciprocate at the time America placed certain fish on the free list. Without going into the question in detail, in many ways it appears that reciprocity in the fishing industry as far as the Pacific is concerned, might after all be beneficial to all concerned. It might perhaps solve the question that arose when American canners came up into Canadian waters and drove up the price of Pink salmon to such a point that Canadian packers could not can their own fish. If the duty were off canned salmon, then the American canners could pack British Columbia fish in British Columbia territory; or if the American canners were short, they could get Canadian canneries to put up what they were short on.

This year of 1915 is stated to be a difficult one to do business in. One often hears the complaint that nobody knows where they are getting off at. What with some buyers holding off from purchasing until later, shipping facilities in a bad mess, and fish scarce, one does not wonder that the fish handler has some reason to grumble. All his training and watching of past years, do not seem to help him at all. Truly those in the fish business this year are one and all doing their "bit."

The poor old sea lion is stated after all to be a much maligned creature. The commission appointed on this coast for the investigation of these animals, is rapidly collecting data. For a long time it was understood that the sea lion preyed upon the salmon and was a source of injury to the industry. But now it appears that these fearsome looking animals feed principally upon squid and such food.

The war has brought out the fact that a great mistake has been made in the past in British Columbia. Her fish resources are like her vast mining possibilities, practically untouched. It has not been for lack of boosting, but perhaps on account of too much boosting by those who have water frontage to sell. The few practical companies with men of experience and training at their head, have all done well. And British Columbia's fish resources are not yet even touched, really speaking. But with tight money in Canada, and owing to past mistakes of those who attempted to float companies when they knew nothing about the fishing industry at all, it is most difficult to do much development to-day. Added to this is the fact that we gave away to the Japanese fishermen our own rights. Nobody is to blame but ourselves. The white fishermen would not stick at his trade, finding that in "boom" times he could make more with less work ashore. Then when he found that he had to get out and work, it dawned upon him what he had given into the hands of the industrious Jap. The Jap knows a good thing when he sees it, and will not let go. The changes in the licensing regulations will probably help to rectify this, but the white fisherman seems to think that he has a big kick coming to-day. Lack of co-operation and himself only have brought about the present situation.

There are other problems than the Japanese one on the Pacific. The solution seems to be a campaign to get the coast settled with the hardworking and industrious Nova Scotian and Newfoundlander. If it were pointed out to these people the opportunities, there is no doubt but that these desirable citizens would come. They would find that they had a climate that practically eliminated all the hardships they have to undergo in their calling on the Atlantic. In past years the high cost of living and abnormal prices of land kept these men away. To-day this is changed, and things are down to a normal basis. With some of these Nova Scotians and Newfoundlanders scattered along the coasts of British Columbia, owning their own boats and gear, having their own land and farms, the fishing industry would have an impetus that it sorely wants. Fish in the waters could be obtained that cannot be to-day. The Japanese is hardworking and industrious, but he can to-day do what he likes. His code is different to that of a white man, and it is difficult to know where one is getting off when dealing with Japanese fishermen. Their organization and the fact of their language makes them a difficult problem. On the other hand we are up against the Indians. These are of the Siwash tribe, about the most happy-go-lucky race in existence. He has many privileges given him by the government that makes for a sort of dog-in-the-manger state of affairs. As long as he has enough money and grub he will not work. If he has money after the cannery season, he will not go after fish that the market wants, unless at abnormal prices. And there is nobody else to get the fish

in his neighbourhood. British Columbia wants white fishermen of the Maritime Provinces and Newfoundland type, and will have to get them sooner or later. There is no getting away from the fact that if these men saw what they could do and the climatic and other conditions here, they would quickly come.

Now that the codfish industry is to be followed on the Pacific, skilled men will be required. But codfishing will not be like that on the Atlantic. There will be no shore fishermen as the codfish in our waters are unsuitable. The business will be run on the lines of bankers. Whilst the vessels are off to the grounds, there are all sorts of fish to be caught, fish waiting for white fishermen.

The English papers are devoting considerable attention to Canadian fish. This has resulted in all sorts of enquiries on this coast. Many of the enquirers are in earnest, but chippers are up against lack of space on the Atlantic boats. We are wondering what was behind that enquiry received by the Department of Trade at Ottawa this past summer. If England is to get Canadian fish, space will have to be allotted, as it seems hopeless for the shippers to attempt to get space.

Kippered Salmon has found its market on the American side, the fish used for this is the white spring. Many carloads were shipped to the large smoking plants of Seattle in September. One local firm had three small steamers freighting this fish from Steveston to Seattle and Tacoma daily. With several buyers in the market, the fishermen (mainly Japanese) got higher prices than usual.

There was a commission sitting in Victoria of late enquiring into the purchases of two submarines a few days before war was declared. These two submarines have been much maligned. It can be stated that they have had nothing to do with the scarcity of fish. They have not chased fish and only once have they had anything to do with fish, and that was very remotely. Some eager Siwashes mistook one for a whale.

Fish Prices in England.

By last mail information was received that the catch of fish in Great Britain was about 50 per cent that of normal times. The following wholesale prices were given:—

Salmon, English, per lb.—2s. 4d. (about 57c.)
Salmon, Scotch, per lb.—2s. 4d. (about 57c.)
Salmon, frozen, per lb—1s (about 24c.)
Salmon Trout, per lb.—2s. 4d. (about 57c.)
Soles, per lb.—1s. 3d. to 2s. 4d. (about 30c. to 57c.)
Mullet (red), per lb.—1s. 6d. to 2s. 6d. (about 32c. to 60c.)
Turbot, per stone.—14s. to 20s. (about $3.40 to $4.87.)
Brill, per stone.—10s. to 16s., (about $2.43 to $3.90.)
Halibut, per stone.—10s. to 20s. ((about $2.43 to $4.87.)
Cod (live), per stone—7s. to 8s. (about $1.46 to $1.70.)
Cod (dead), per stone.—4s. to 6s. (about 97c to $1.46.)
Haddocks, per stone.—3s. 6d. to 4s. 6d. (about 85c. to $1.09.)
Haddocks (steamer large), per trunk of.—28s. to 30s. (a(bout $8·81 to $9.30.)
Haddocks (steamer, small), 6½ to 7 stones.—12s. to 14s. (about $2.92 to $3.40.)
Haddocks, Iceland, per stone.—3s. (about 73c.)
Haddocks, per turn (10 stones).—30s. to 45s. (about $7.30 to $8.52.)
Herrings Fresh (English), per bbl.—25s. to 40s (about $7.30 to $8.52.)
Herrings, salted (English), per bbl.—20s. to 40s. (about $4.87 to $9.73.)

PRINCE RUPERT NOTES.

There have been quite a number of visitors to Prince Rupert during the past month from Seattle and Vancouver. Mr. Ingalls, of the Booth Fisheries Company, Seattle, Mr. Sandstrome, of the Pacific Net and Twine Co., Seattle, and Mr. Will Calvert, Jr., of the San Juan Fishing and Packing Co., of Seattle, and Mr. J. P. Todd, Fish Broker, of Seattle, spent qiute some time in Prince Rupert looking over the fishing possibilities of the port.

Mr. H. O. Roberts, has been appointed to act as buyer at Prince Rupert for the San Juan Fishing and Packing Co. Mr. Roberts has already established himself at Prince Rupert, and is now arranging for a good location.

The National and Independent Fisheries Company of Seattle, Wash., announce that they have appointed Mr. Otto Bernhoff as their Prince Rupert representative.

It is rumored that the fishing supply business of Mr. Edward Lipsett at this port is to be considerably enlarged and that it will run in conunction with the Pacific Net and Twine Co. of Seattle. The visit of Mr. Sandstrome of the latter company, and of Mr. Edward Lipsett, lends some color to this report. Mr. Lipsett's Prince Rupert Branch has been established for about 18 months on the Government Dock, but has found that the facilities for doing business in this location are not good enough, and he is therefore taking a store up-town.

The Schooner "Borealis," belonging to Atlin Fisheries Limited, has been completely overhauled and a number of necessary repairs carried out in her engine room and on the anchor hoist. She is now fully equipped for the winter fishing season.

Towards the end of September the run of salmon in the Skeena River declined and the canners were obliged to pay 25c. each to the fishermen for cohoes.

The auxiliary schooner "W. R. Lord," formerly fishing for halibut, is now acting as a pick-up boat for her owners on the Skeena River.

The result of the fishery concessions made in the spring by the Dominion Government as regards the landing of American fish in bond at the port of Prince Rupert, has proved that the people of Canada have little to learn from other countries as regards business methods.

The success of these regulations in attracting the American fisherman to the Port of Prince Rupert is proved. September shows a still further increase in receipts over previous months, and still the end of this increase is yet to come. Sixty-two car loads of fresh fish were shipped east over the G. T. P. Ry. in September. These were full cars. In addition, about eight car loads of broken shipments were also sent through. A certain amount was also sent south by steamer, consisting of undersized fish not used for shipment east.

The total receipts at the Port of Prince Rupert for the month of September were:—

Salmon	1,799,200	lbs.
Cod	20,100	
Halibut	2,165,500	
Flounders	600	
Crabs	700	

The most notable incident of the month has been the location of a branch of the Pacific Net and Twine Co., the large Seattle concern, in Prince Rupert. In addition, five southern firms have started buying at the Prince Rupert wharf.

Fishing boats flying the American flag, which a few months ago, furnished comment, are now so frequent as to escape notice, of any but those interested, and good treatment and splendid facilities have had the effect of getting return visits from these craft.

The Imperial Oil Co. has announced a still further reduction in the cost of distillate, and fuel oil is now selling at the Port of Prince Rupert at 4-10ths of a cent cheaper than at Ketchikan, Alaska. This firm has done much towards aiding in the attracting of craft to Prince Rupert. Their capital investment in Prince Rupert is a large one, being in the neighbourhood of $300,000, and speaks well for their confidence in Prince Rupert as a centre.

The 1915 Fair of the Northern British Columbia Agricultural and Industrial Association, held in Prince Rupert, on the 22nd, 23rd, and 24th September, was an unqualified success. The attendance was good, and the exhibits of excellent quality. Mr. Shrubsall made a splendid exhibit of various forms of smoked and cured fish. The Inverness Cannery, owned by Messrs. H. H. Todd and Son, of Victoria, also made a good exhibit of canned products.

The directors have decided to considerably augment the space allotted to the fishing industry at the 1916 Exhibition, and the collection of a permanent exhibit of Northern Pacific fish and curios has been started. It is the intention of the Board to gather all the data possible as to the various forms of food fish found in Northern B. C. waters and to get the fishermen to bring in curios.

ALASKA NOTES.

The schooner "Lief E." put into Ketchikan to land J. Thorsen, who was taken seriously ill while the vessel was fishing on the Frederick Island Banks.

The schooner "Seymour" lost her cable and anchor last month, and owing to the bad weather outside, was obliged to return to port for new ground tackle.

The schooner "Myrtle Enderson," belonging to the Seattle fleet, was burned to the water's edge, and is a total loss. She was insured for $10,000, and the vessel was abandoned by the owners to the underwriters. There was no loss of life, owing to the fire having occurred while the vessel was close to land. The fire is supposed to have been caused by the back firing of the auxiliary gasoline engine.

Mr. Henry Wilke, manager of the New England Fish Company's plant here, returned to Ketchikan after a month's absence in the South, during which time he visited Seattle and his company's headquarters at Vancouver, B.C.

HALIBUT ARRIVALS AT PRINCE RUPERT, SEPT. 16 TO OCTOBER 15, (Canadian.)

Sept.	lbs.
18—Jas. Carruthers, The Canadian Fish & Cold Storage Co., Ltd.	120,000
20—Tuladi, The Canadian Fish & Cold Storage Company, Limited	18,000
21—Borealis, Atlin Fisheries, Limited	25,000
22—George E. Foster, The Canadian Fish & Cold Storage Co., Limited	90,000
23—Gilford, The Canadian Fish & Cold Storage Co., Limited	10,000
G. Starratt, The Canadian Fish & Cold Storage Company, Limited	20,000
24—Chief Zibassa, The Canadian Fish & Cold Storage Company, Limited	45,000
27—Chief Skugaid, The Canadian Fish & Cold Storage Company, Limited	15,000
Oct.	
2—Andrew Kelly, The Canadian Fish & Cold Storage Company, Limited	40,000
Jessie, Atlin Fisheries, Limited	10,000
7—Carlotta G. Cox, Atlin Fisheries, Limited	10,000
W. L. Lord, The Canadian Fish & Cold Storage Company, Limited	15,000
Tuladi, The Canadian Fish & Cold Storage Company, Limited	5,000
8—Jas. Carruthers, The Canadian Fish & Cold Storage Company, Limited	70,000
G. Starratt, The Canadian Fish & Cold Storage Company, Limited	15,000
10—Borealis, Atlin Fisheries, Limited	20,000
11—Zorra, Atlin Fisheries, Limited	5,000
Chief Zibassa, The Canadian Fish & Cold Storage Company, Limited	12,000
12—Chief Skugaid, The Canadian Fish & Cold Storage Company, Limited	20,000

HALIBUT ARRIVALS AT VANCOUVER, SEPT. 16 TO OCTOBER 15.

Sept.	lbs.
16—Carlotta G. Cox, The Canadian Fishing Co., Limited	5,000
21—Flamingo, The Canadian Fishing Co., Ltd.	50,000
24—Celestial Empire, The Canadian Fishing Company, Limited	70,000
27—Emma H., The Canadian Fishing Company, Limited	30,000
Pescawha, The Canadian Fising Company, Limited	70,000

HALIBUT ARRIVALS AT PRINCE RUPERT, SEPT. 16 TO OCTOBER 15 (American.)

Sept.	lbs.
17—Lincoln	10,000
San Jose	10,000
Tordenskjold	10,000
19—Stranger	13,000
21—Agnes B.	5,000
Alten	60,000
Lief E.	15,000
Lister	5,000
Shamrock	30,000
22—Theckla	10,000
24—Eagle	15,000
J. F. Decker	30,000
Constitution	55,000
Tom and Al.	50,000
25—Republic	45,000
Rainier	5,000
Albatross	25,000
27—Lincoln	10,000
Polaris	5,000
Thelma	22,000
28—Presho	5,000
Atlantic	10,000
29—Aurora	5,000
Malola	10,000
Oct.	
1—Stranger	5,000
2—Alaska	20,000
3—Orient	50,000
Tordenskjold	40,000
Rolfe	10,000
Wireless	25,000
4—Kongsverre	10,000
Constance	25,000
Athena	40,000
5—Olympic	15,000
Alameda	15,000
8—Lincoln	5,000
Tom and Al.	30,000
Jennie F. Decker	10,000
9—Cora	5,000
Shamrock	5,000
La Paloma	40,000
Omaney	30,000
Seymour	50,000
Get the Hook	5,000
12—Thelma	5,000
Leister	10,000
Magnolia	5,000
Presho	5,000
14—Alten	60,000
15—Republic	25,000
Idaho	45,000

HALIBUT ARRIVALS AT STEVESTON, SEPT 16 TO OCTOBER 15.

Sept.	lbs.
18—Roman, Columbia Cold Storage Company	115,000
Oct.	
1—Onward Ho, Columbia Cold Storage Co.	50,000
4—Roman, Columbia Cold Storage Co.	40,000
28—Iskum, The Canadian Fishing Company, Limited	15,000
29—Trapp, The Canadian Fishing Company, Limited	15,000
Manhattan, New England Fish Company	100,000
30—New England, New England Fish Co.	160,000
Oct.	
11—Flamingo, The Canadian Fishing Company, Limited	35,000
Knickerbocker, New England Fish Co.	15,000
12—Celestian Empire, The Canadian Fishing Co., Limited	50,000
Pescawha, The Canadian Fishing Company, Limited	50,000
13—Emma H., The Canadian Fishing Company, Limited	35,000

HALIBUT ARRIVALS AT KETCHIKAN, ALASKA, SEPT. 16 TO OCT. 15.

Sept.	lbs.
25—Knickerbocker, New England Fish Co.	25,000
28—Prospector, New England Fish Company	35,000
Oct.—Miscellaneous, New England Fish Co.	10,000

PRINCE RUPERT FISH INDUSTRY BOOMING.

Mr. John Pullen, President of the Canadian Express Company, has just returned from a trip to the Pacific Coast.

"'It will indicate," he said, "the importance of this business, when I say that the average monthly receipts of fish at Prince Rupert are now 1,723,000 pounds—mostly halibut—and that 73 vessels touched at that port in 30 days.

"At Seattle the average is 2,000,000 pounds, with 42 vessels engaged, while Vancouver shows 1,099,000 pounds, with 18 vessels engaged. Most of the fishing is done in the Alaskan waters, nearly 1,000 miles from Prince Rupert; but whereas before the advent of the Grand Trunk Pacific and Prince Rupert, the fish was brought all the way from the north to Vancouver and Seattle by boat, the long distance is saved by touching at Prince Rupert, from whence the fish is brought east, in the pink of condition, on express refrigerator cars—the long distance being saved from the point of catch to Vancouver and Seattle, as heretofore. The business is so increasing that we will have to add more refrigerator equipment.

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Vol. II. MONTREAL, DECEMBER, 1915 No. 12

CANADIAN FISHERMAN

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On all unleased Crown Lands and Waters, angling and hunting are absolutely free to residents of the Province, and the only charge to non-residents is the cost of the non-resident fishing or hunting license

To The Wholesale Fish Trade

The attention of dealers who receive their fresh fish from Portland and other foreign sources is directed to the exceptional opportunities of obtaining their supply from the Baie des Chaleurs and the North Shore of the St. Lawrence, to their own advantage and that of their customers, and to the benefit of the fishermen of the Province of Quebec.

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DEPARTMENT OF THE NAVAL SERVICE

FISHERIES BRANCH

Lobster Fishery Fishing Seasons in Force on May 1st, 1915

Number of District	Limits	Fishing Season	Size
1	St. John and Charlotte Counties, N.B.	Nov. 15 to June 15..	4¼" carapace
2	Albert County and Portion of Cumberland County, N.B., and King's and Annapolis Counties, N.S.	Jan. 15 to June 29...	No Size Limit
3	Digby County	Jan. 6 to June 15....	No Size Limit
4	Yarmouth, Shelbourne, Queen's, Lunenburg, and that portion of Halifax county west of a line running S.S.E. from St. George's Island, Halifax Harbour, and Coinciding with Fairway buoys	Dec. 15 to May 30...	No Size Limit
5	From line in Halifax Harbour running S.S.E. from St. George's Island, and coinciding with Fairway buoys eastwardly to Red Point, between Martin Point and Point Michaud, Cape Breton Island and including Chedabucto and St. Peters Bays and the Gut of Canso, as far as a line passing from Flat Point, Inverness County to the Lighthouse in Antigonish County opposite	April 1 to June 20...	No Size Limit
6	Remaining portion of Cape Breton Island, including St. Paul's Island, not covered by District No. 5	April 15 to July 15...	No Size Limit
7	The Magdalen Islands, including Bird Rocks and Bryon Island	May 1 to July 20....	No Size Limit
8	Waters of Northumberland Strait, between a line on the N.W. drawn from Chockfish River, N.B., to West Point., P.E.I., and a line on the S.E. drawn from the west side of River Philip channel at the mouth of the river, Nova Scotia, to the eastern entrance to Victoria Harbour, Queens County, Prince Edward Island	May 25 to Aug. 10...	No Size Limit
9	On and along the portion of the coast or the waters thereof, of the Provinces of Nova Scotia, New Brunswick and Prince Edward Island, westwardly and northwardly, from the Lighthouse in Antigonish County, opposite Flat Point in Inverness County, Nova Scotia, to the northern boundary New Brunswick, including the coasts and waters thereof of all the islands adjacent to these portions of the coasts of the said Provinces as well as the coast and waters thereof of the Counties of Quebec south of River St. Lawrence, except those specified in No. 8	April 26 to June 25..	No Size Limit
10	North of the Gulf and River St. Lawrence including Anticosti Island	May 20 to July 31...	No Size Limit

Soft shell or berried lobsters must be liberated alive by the person catching them.

Lobster traps may not be set in 2 fathoms of water or less.

Lobsters to be canned may be boiled only in the cannery in which they are to be packed. The sale or purchase of broken lobster meat or fragments of lobsters for canning is prohibited.

Before lobster canning is engaged in, a license from the Department of the Naval Service is requried.

Canned lobsters must be regularly labelled or a permit obtained from the Department, before they may be removed from the cannery, and must be labelled before being placed on the markets.

Lobster canneries must comply with the Standard of Requirements, copies of which may be obtained from the local Fishery Officers or the Department.

THE CANADIAN FISHERMAN

A MONTHLY JOURNAL DEVOTED TO THE COMMERCIAL FISHERIES OF CANADA AND NEWFOUNDLAND THE SCIENCE OF THE FISH CULTURE AND THE USE AND VALUE - OF FISH PRODUCTS - -

F. WILLIAM WALLACE
EDITOR

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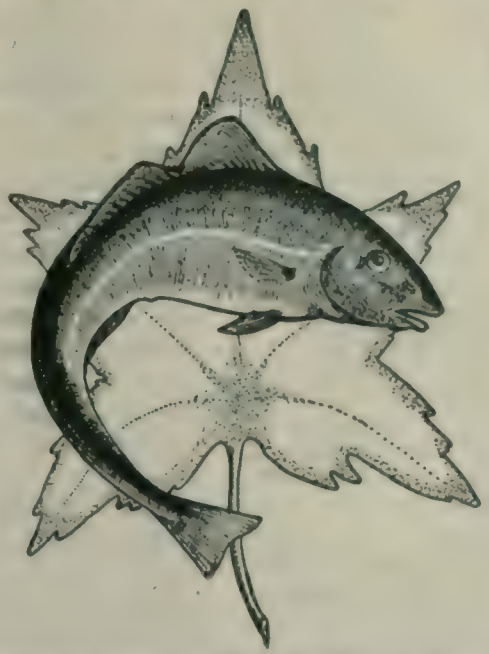

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Published on the 24th day of each month. Changes of advertisements should be in the publisher's hands ten days before that date. Cuts should be sent by mail, not by express. Readers are cordially invited to send to the Editor items of Fishery news, also articles on subjects of practical interest. If suitable for publication these will be paid for at our regular rates.

Official Organ of the Canadian Fisheries Association

Vol. II. MONTREAL, DECEMBER, 1915 No. 12

CANADIAN FISH FOR BRITISH MARKETS.

The sample shipment of Canadian frozen, smoked, salted and cured fish which was collected by the Canadian Fisheries Association and forwarded to the Department of Agriculture and Fisheries, London, Eng., by the Department of Naval Service, arrived in Liverpool on the Allan liner "Corsican" early in November and was forwarded to London, where it is now on exhibition. It is too early yet to announce the results of the venture, but it is hoped that the exhibition of the samples of our fish products will create an export trade between Canada and the Mother Country in frozen and cured fish.

Last August, the Association prepared a memorandum for the Naval Service Department, showing what Canada could do in the way of supplying fish to Great Britain. This memo. was transmitted to the British Colonial Office in London, and the "Fish Trades Gazette," of that city comments upon it as folows:—

> The Department of the Naval Service, Ottawa, Canada, has prepared an interesting memorandum at the request of Lord Selborne, through the Colonial Office, on the subject of the possibility of bringing supplies from Canadian and Newfoundland waters for the markets of the United Kingdom. It was a very good idea to get this information, although, as our readers will be able to judge for themselves, there is not a great deal in it that is new. As is pointed out, the fish that are caught on the Canadian Atlantic coast which would likely be of most use in the British markets are cod, haddock, hake, cusk, pollock, halibut, skate, and herring, and on the Pacific Coast, halibut, salmon, herring, cod, and skate.

The memorandum states that "while there is a large and rapidly increasing demand for fresh fish packed in ice, and fresh frozen fish in Canada, amounting now to about 50,000 tons annually, the bulk of the Canadian catch is exported in a dried, salted, pickled, or smoked state, and, owing to the conditions under which the fisheries are carried on, it is not feasible to do otherwise. It is said that if there were an assured market much more fish could be, and would be, landed than at present. There is no reason, apparently, why some of the fishing should not be continued throughout the winter. It is suggested that fish of the medium size, especially haddock under fifteen inches long, and also skate, are, as a rule, regarded as unsaleable and are thrown overboard. We could doubtless do with some of these fish over here, and the Naval Service is clearly of opinion that a great deal more could be done in developing the herring trade. "Indeed," we are told, "practically unlimited quantities of British Columbia herring could be obtained for shipment to the United Kingdom."

It is noted that shipping fresh frozen fish has 'passed beyond the experimental 'stage, and as there is large freezing and cold-storage accommodation for fish at Halifax, Port Hawkesbury, Canso, Lockeport, and St. John on the Atlantic coast, and at Vancouver, New Westminster, Prince Rupert, and Uchucklesit on the Pacific coast, little difficulty should be experienced in procuring and freezing fish for export." It is thought, also, that the present is a particulalry fit time to make known to the British public the excellence of the cheaper varieties of salmon, "now selling in a wholesale way from about two dollars and seven-

ty-five cents per case of forty-eight 1-lb. cans for chums (or dog salmon) to about five dollars per case for cohoes (or silver salmon), and probably slightly more for spring salmon."

The conclusion drawn is "that if prices can be obtained in Great Britain which will enable a reasonably profitable industry to be carried on, if sufficient cold-storage accommodation in trans-atlantic vessels is available at moderate enough rates, and if fish frozen, chilled, smoked, or canned are acceptable, large quantities could be furnished by Canada." It is thought there would be little difficulty experienced in producing at least 2,000,000 lbs. of all classes of fish more per week than is now being done. If anything is to result from this inquiry, the Naval Service observed, as far back as August 12, steps should be taken at once in order that requisite arrangements may be made with the fishermen before their vessels and boats are laid up for the coming winter. In the circumstances it may be thought unfortunate that the memorandum was not issued much earlier, but this would be on the assumption that any effective steps could have been taken, which we beg leave to doubt."

As the "Gazette" observes, if the memorandum were to be acted upon, effective steps would have been taken ere this. True, but the British dealer, like the man from Missouri, wants to be shown. No dealer will buy a product three thousand miles away which he knows very little about and assume the risk of shipment, nor will our Canadian producers ship to a market across the ocean and assume a similar risk. Dozens of enquiries have come to our Canadian producers from British fish firms, but neither would take the responsibility of guaranteeing the product in transit across the Atlantic, and no business was done except in regularly established lines such as frozen salmon and halibut, lobsters and canned goods.

It was to assist in removing this trade barrier that the sample shipment was collected and sent over, and while there is a chance that the goods will not have arrived in as good a condition as they might, it is to be hoped that the British dealer considering Canadian fish, will make allowances for the difficulties in collecting a sample shipment, and remember that future orders, prepared and shipped direct from the producing firms on the sea-board will undoubtedly arrive in better condition than a sample lot collected from many points, hauled west over the railroad to Montreal, and shipped east again in a steamer. Time in transit, and variation in temperatures caused by cartage and removals from railroad cars, boats, and in and out of storages, do not do the fish any good.

In orders shipped direct, this extra handling would be done away with and Atlantic fish can be shipped right out of St. John, N.B., or Halifax, N.S.—ports but a few miles away from points of production. Fish from the Pacific and the Great Lakes could be run to seaport in refrigerator cars without transhipment. In the case of the sample shipment, owing to the difficulties in procuring refrigerator space on trans-Atlantic steamer, the fish had to be collected in Montreal.

The submarine warfare in British coastal waters and the requisitioning of the steam fishing fleets and crews in the work of submarine hunting and patrolling caused a scarcity in the British supply and was the motive for the Canadian enquiry. Though the German submarine "blockade" of Great Britain is an admitted failure, yet these fishing craft cannot be released from their work. The new activities of the "subs" in the Mediterranean will, no doubt, necessitate a further drain on the British fishing fleet for the task of rounding up the U boats in those waters. All of which points to a continued scarcity of fish in the British markets. Canada and Newfoundland has supplied many fighting men to the Empire's Army—give us the word and we'll supply the fish, too.

OUR OPPORTUNITY IN HERRING PACKING.

Owing to European war conditions, Holland, Scotch, Irish, Yarmouth and Iceland pickled herring are very scarce. Great quantities of these herring are consumed in the United States, and at present, it is reported, the demand is greater than the supply, and will continue so for a long time to come.

The great market for pickled herring in the United States has caused a furore in both the home and other sources of production. We hear that in Eastport, Maine, they intend putting up 25,000 ten-pound firkins of local herring packed in the Holland style this winter. An enterprising firm of American dealers chartered a steamer recently, and imported 5,000 barrels of salt herring direct from Iceland to New York. Most of this shipment went to Chicago.

What is Canada and Newfoundland going to do to capture some of this trade? Herring is extremely plentiful on our Atlantic and Pacific coasts, and we have been putting up over 150,000 barrels of pickled herring annually; in Newfoundland the pack is around 75,000 barrels. But where does Canadian and Newfoundland herring stand to-day? At the bottom of the market list. Why? Because of sloppy, slip-shod, any-how packing, and an absolute disregard of the requirements of the market and the tastes of the consumer.

In Canada, the Department of Fisheries has tried hard to bring Canadian herring to a higher standard. The Pickled Fish Inspection Act was framed and put into operation, and a Scottish herring expert, Mr. J. J. Cowie, travelled around the fishing centres explaining the purpose of the Act, which, unfortunately, is not compulsory, and even made practical demonstrations of the best methods in which to pack herring in the Scotch style. Magazines and newspapers all over the country have given publicity to the urgent need of better packing, and the publicity given by them and the Fisheries Department gives no herring fisherman or packer any excuse to plead ignorance. As regards Newfoundland, the same may be said. The Fisheries Department of the Island Colony have recognized the

value of better packing in the herring industry and have, like Canada, preached the gospel of better packing to the fishermen. Dr. Hjort, a Norwegian fisheries expert, has investigated and reported on the possibilities of the herring fishery in both Canada and Newfoundland, and his reports, with its recommendations, have been published broadcast.

A little rousing up, now and again, is a good thing. We all know what fine fisheries we possess, but in exploiting them to the best advantage, we have been "asleep at the switch." Our best market is right alongside of us, yet the British, Dutch and Scandinavian fishermen have put it all over us in getting their products into the United States and even our own markets. It is about time our fishermen and producers woke up.

As an instance of what an "outsider" can do, we quote the work of a well-known Montreal fish dealer —not a fisherman, but a retail store keeper. This gentleman spent a few weeks in Nova Scotia on a vacation. At a sea-port town he noticed the manner in which herring were packed by the local fishermen. As an experiment, he procured 100 first-class hardwood barrels, engaged some fishermen and purchased a quantity of herring. He packed these according to the rules laid down in the Pickled Fish Inspection Act of Canada, and shipped them up to his store in Montreal. They were sold immediately, and sample barrels sent to New York, resulted in a large order for pickled herring put up in a similar manner, the Scotch style. So impressed was he with the opportunities in herring packing, that he went to Newfoundland, and took 1,000 barrels with him.

The herring packed by him were large full fish, gutted, but with the roe and milt left in. After being well salted with Liverpool salt to keep the scales on before packing, he then packed them all back down close together in rows in the barrel of brine. After eight days in the barrel, the fish were taken out halfway down, the brine drained off, and the barrel repacked full again. After heading up, new brine was poured in through the bung again. Not a great deal of labour, but enough to bring greater remuneration in marketing.

How long are our fishermen going to stand by and look on while strangers come and show them their business, and incidentally make money before their eyes? For the benefit of those who do not know the simple requirements of the Pickled Fish Inspection Act in herring packing, we reproduce an extract. The whole requirements can be obtained by writing the local fisheries officer or the Department of Naval Service, Ottawa.

Method of Curing, Packing, Etc., of Herring and Alewives Necessary to Secure the Brand.

Herring to be cured round should have the gills and entrails taken clean away by cutting just below the two upper fins, with a sharp knife, and should be thoroughly salted into perfectly tight clean receptacles immediately after being caught.

Herring to be cured as split herring should be neatly opened with a sharp knife, and have the blood scraped from the bone, washed and thoroughly salted into perfectly tight clean receptacles immediately after being caught.

Alewives should be thoroughly salted into perfectly tight clean receptacles immediately after being caught.

Herring and alewives should be well turned over in salt, and as much of it as possible allowed to stick to each fish before being placed in the aforementioned receptacles, in order to prevent one fish from sticking to the other and becoming discoloured when cured.

Herring and alewives shall have been in salt and pickle for not less than ten free days before being presented for the brand.

Herring and alewives should be carefully laid in tiers in the barrels or half-barrels and each tier uniformly salted and completed with two fish laid across the heads of those in the tier, and each successive tier laid transversely to the tier underneath, and the heads of the fish kept close to the sides of the barrels of half-barrels.

Barrels and half-barrels should be soaked in clean water before filling.

In finally packing barrels or half-barrels after the fish have been in salt and pickle not less than ten days fish of the same quality and of the same date of curing should be used, and every barrel should contain two hundred pounds, and every half-barrel one hundred pounds of fish when completely packed.

Barrels and half-barrels after being packed should be immediately headed up, made perfectly tight, and filled through a bung hole in the centre of the bilge, with clean pickle made strong enough to float a herring.

The fish during the process of curing and handling, and the barrels and half-barrels after being filled must be carefully protected at all times from the weather.

After barrels and half-barrels have been finally filled, the top quarter hoops and the chime hoops when of wood should be securely nailed with nails not exceeding one and one-quarter inches in length.

The construction of the barrel, grading of the fish, and the method of packing in the popular Scotch style are given in detail in the booklet covering the Act. Fish packed according to the Act will be branded on the barrel by the Canadian Government which ensures a guarantee of quality which will pass any buyer and command the best price.

Suggestions as to the best method of catching herring; the superiority of offshore fish as compared with inshore, and various other details are too lengthy to quote here, but the enterprising fishermen can procure all this information from the Naval Service Department, Ottawa, free of charge and merely for the trouble of writing.

Opportunty is knocking at our gates. It is up to you, our fishermen and packers, to get busy and not allow Opportunity to pass along. She's no slacker even if you are.

NEW ONTARIO FISHERY REGULATIONS.

On October 29, an Order-in-Council was passed in Ottawa amending the Ontario Fishery Regulations. A digest of the most important regulations pertaining to the commercial fisheries are as follows:—

Section 6—Mesh of Gill Nets.

(a) The mesh of gill-nets used for the catching of herring, shall not be less than three inches extension measure, when in use, except in Lake Ontario from Port Union to the mouth of the Niagara River where the taking of herring by nets of a mesh of not less than two and one-half inches extension measure when in use may be permitted, until the thirty-first day of December, 1917, and in Lake Superior where the mesh of such nets shall not be less than two and one-half inches extension measure when in use, provided that in waters not more than eight fathoms deep the use of nets having meshes not less than two and one-quarter inches extension measure, when in use, may be permitted.

(b) The mesh of gill-nets used for the catching of whitefish, or salmon trout shall not be less than four and one-half inches extension measure when in use.

Section 7—Pickerel.

(a) No one shall fish for catch or kill any pickerel, (dore), from the fifteenth day of April to the fifteenth day of June in each year, both days inclusive excepting in the waters of the Great Lakes, Georgian Bay, North Channel, and connecting waters. (Possession in close season without lawful excuse prohibited. See Fisheries Act, Section 29).

(c) The sale or export of any pickerel, (dore) less than fifteen inches in length which measurement shall be from the point of the nose to the centre of the posterior margin of the tail, is hereby prohibited.

Section 8—Prohibitions.

(a) No one shall fish for large-mouthed or small-mouthed black bass, maskinonge, salmon, speckled trout, brown trout, rainbow or other Pacific trouts through the ice.

(b) No one shall fish with snares or artificial lights of any kind.

(c) No one shall fish with gill-nets in the waters of Lake Erie from the fifteenth day of December in each year to the fifteenth day of March next following, both days inclusive.

(d) No one shall set or place nets other than hoop-nets, dip-nets or roll-nets, in any river or creek, or within five hundred yards of either side of the entrance thereto, provided that this prohibition shall not apply to carp fishing.

(e) No one shall use a trap-net of any kind for the capture of fish.

Section 9—Restriction Bay of Quinte.

No one shall fish with nets during the months of June, July and August in that portion of the waters of the Bay of Quinte, lying westward of a line drawn from Green Point, in the County of Prince Edward to the eastern limit of the Town of Deseronto, in the County of Hastings.

Section 13—Whitefish and Salmon-Trout.

(a) In waters where commercial fishing with gill-nets is not permitted, no one shall fish for, catch or kill, any whitefish or salmon-trout from the 5th day of October to the 5th day of November in each year, both days inclusive.

(b) In waters other than those of the Great Lakes, Georgian Bay, North Channel and connecting waters where commercial fishing with gill-nets is permitted, no one shall fish for, catch or kill any whitefish or salmon-trout from the 5th day of October to the 30th day of November in each year, both days inclusive; provided that in that portion of the Bay of Quinte westward of a straight line drawn due south astronomic across the bay from Conway, in the county of Lennox, to the opposite short in the county of Prince Edward, no one shall fish for, catch or kill any whitefish or salmon-trout from the 1st to the 30th day of November in each year, both days inclusive.

Section 14—Exception.

Except as to export, none of the foregoing regulations shall apply to fish rearer in any waters set apart or establishments specially licensed by the Province to engage in the natural or artificial rearing of fish.

PISCATORIAL PARAGRAPHS.

Mr. Hugh A. Green, of Saskatoon, and Fish Monger General of Camp Hughes, Manitoba, is shortly billed to appear in vaudeville singing that famous war ditty entitled "Hughie Green is selling fish for Soldiers." Hughie's fish have made quite a hit with the boys in khaki, and he has been distributing as much as five tons of halibut, whitefish and kippers weekly.

The officers and directors of the Canadian Fisheries Association have been elected to remain in office another year. Several matters of importance to the industry are being handled by them, and it was the unanimous wish of the members that the present executive retain their office and continue the work undertaken by the Association.

According to Dr. Hjort, the Norwegian fishery expert, Canadian herring are inferior to Scotch and Norwegian herring owing to the fact that the Canadian fish are caught inshore when they come to spawn. The foreign herring are caught offshore, and are three year herring which have not spawned. The local variety is a four-year herring which are caught alongshore during the spawning period. Dr. Hjort will suggest ways and means for the prosecution of an offshore herring fishery in Canada, and his report will be published in the near future.

The fishermen over in England have found one of the greatest sports in the world—that of submarine hunting. An English correspondent states that the fishermen are eager to ship on the steam trawlers engaged in this work, and the dangerous job of rounding up the U boats is regarded as being "bally good sport." With a fleet of fast steam trawlers equipped with quick-firing guns and nets, "hunting the Huns," the so-called "blockade" has been a failure, and credit must be given to the nervy men of the fishing fleets.

The report of the Commissioner of Fisheries for British Columbia, 1914, is an exceedingly interesting document. The fisheries of the Province amounted to $13,891,398—a decrease over the previous year owing to the reduction in size of the sockeye salmon pack and a falling off in the price realized for halibut. Nevertheless, the statistics are encouraging, considering the depression caused by the curtailment of markets owing to the war.

CANADIAN CANNED HERRINGS FOR AUSTRALIA.

The Trade and Commerce Department, Ottawa, advises that: "Owing to British and Continental packers of canned fish being unable to supply the Australian requirements, there is at present an unprecedented demand for such lines as canned herrings—fresh and in tomato sauce—and sardines. The Canadian pack put up by Messrs. Connors Bros., Ltd., Black's Harbour, New Brunswick, has, through its Australian representation, sold (up to October 20), nearly 11,000 cases of herrings and sardines. In fact, the packers' limit of herrings has been sold in its entirety, and it is anticipated that some 5,000 additional cases of sardines will easily be sold during the next week or two on shipments spread over until March, 1916.

There is ample room for other lines of Canadian canned fish, including lines of herrings and sardines, with lowest f.o.b. steamer quotations."

FRANCE MAY GIVE UP MIQUELON.

The possibility that the Miquelon archipelago, the last North American possession of France, may be annexed to Newfoundland at the close of the European war is receiving serious consideration in that colony.

The little islands of St. Pierre, Miquelon and Langlade, a short distance off the south coast of Newfoundhave formed for two centuries the advance base for the French cod fishery on the Grand Banks.

In recent years the prosperity of the tiny colony has steadily diminished and all possibility of industrial progress for some time to come was destroyed when the French government in February last summoned all the able-bodied men in the island to the colors.

The town of St. Pierre, where most of the colonists live is now inhabited only by aged men, women and children. It is considered probable that such of the conscripts as survive the war will be reluctant to return to a struggling existence in the colony and will seek wider opportunities in France.

Since bait fishing by the French has been largely supplanted by steam trawlers the usefulness of the fisheries output has become slight. It is the opinion of many Newfoundlers therefore, that France will find it to her advantage to turn the islands over to Newfoundland in return for fishing facilities in these waters. — New York Sun.

FISH TRADE WITH GRENADA, B.W.I.

The feature of the year in the fish trade was large importation from Newfoundland. More fish came also from Canada. Barbados, which for a number of years has been the supply house for the neighbouring islands, appears to be losing some of his trade, as it valued £6,205 in 1913, and was only £587 last year. The particulars of the import will be seen in the following statement:—

Imports of Fish.

	lbs. Quantity	£ Value.
Fish, dried, salted or smoked—		
United Kingdom	10,298	163
United States	40,197	437
Newfoundland	525,574	6,597
Barbados	36,936	419
Trinidad	8,291	89
Canada	224,840	2,968
Venezuela	98,848	1,173
Other Countries	530	12
	945,514	11,858
Fish, canned:—		
United Kingdom	7,909	333
United States	8,430	245
Portugal	3,738	135
Norway	773	14
France	773	27
Canada	27	2
Trinidad	54	2
	21,302	758
Fish, pickled:—		
Newfoundland	58,200	338
United States	25,715	215
Canada	53,500	250
Barbados	47,825	168
	185,240	971

Rough and windy weather along the Atlantic coast during November has interfered greatly with the supply of groundfish. Haddock has been very scarce.

1915 DECEMBER FISH DAY CALENDAR 1915

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
-	-	-	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	-

15th and 18th Ember Days.

Lunenburg's Banner Year

The Story of Nova Scotia's Fishing Centre, Told by Agnes G. McGuire.

When the Lunenburg bankers went forth early last spring and there were storms and loss of gear and other setbacks which only the March winds can cause, the wiseacres shook their heads and frowned ominously. When the ice blocked the Straits and the vessels could not get bait, the wiseacres still continued to frown, and "Blue Ruin" was the verdict for this town, which is so dependent on the success of its fishing seasons.

But suddenly that little god of luck which had been dancing on the bowsprits during the March winds, got tired of playing pranks, and settled down to be good and then the troubles of the fisherman vanished, at least for those who fished off the Nova Scotia coast, and many of the vessels will show a good profit for the work of 1915.

Captain Abraham Cook, High Line Skipper.

True, those who stayed at Newfoundland made a poor summer, but then such are the fortunes of the fisherman, and with his usual optimism, he is hoping for better grace next year. A tabulated statement of the number of vessels engaged, catch and catch per schooner, shows the following results for the past ten years:

	Vessels.	Quintals.	Av. per vessel
1906.....	134	120,970	902
1907.....	109	123,625	1,134
1908.....	110	138,180	1,256
1909.....	93	173,582	1,866
1910.....	102	216,400	2,051
1911.....	122	216,450	1,774
1912.....	136	211,080	1,552
1913.....	121	211,405	1,747
1914.....	118	154,065	1,305
1915.....	118	227,245	1,827

It will be seen from the foregoing that 1915's returns are the largest for many years, exceeding that of last year by 70,000 quintals.

Captain Abraham Cook, with a total catch of 4,000 quintals, is again high liner, that is, of course, for the spring and summer trips. It is no novelty for him to occupy this position, and he takes his honor very easily, apparently thinking it of little importance. He is proud of his schooner, the James Burton Cook, which is named after his son, and his pride in her is certainly justifiable.

Bank cod to-day are quoted at $6.50 per quintal, with every prospect of a sharp advance. The outlook for this market is very bright, in fact, for all kinds of dry or pickled fish. The stocks in the stores are extremely low for this season; all lots incoming find a ready sale at full prices. The Lunenburg fishermen to-day hold the key to the situation in their own hands, and the probability is that following the primary market at St. John's, Nfld., the prices will advance still higher in the next few weeks.

Buyers from Scotland have invaded the market for dry fish, and this new demand strikes a sharper note to strengthen the situation.

The spring catch, brought on an average $5.75 per quintal, and aproximated 100,000 quintals. Averaging the total catch at $6.00 per quintal, it can be seen at a glance that it is a good thing to be a Lunenburg fisherman, when dividends are being paid.

Fishing as an industry, certainly dates back to the very earliest days of this continent. We may go still further and say that it was a means of obtaining a livelihood in the days of our Saviour, and it was from fishers of the sea that He made "Fishers of men."

As early as the 12th Century, the Basque and fishermen of Norway made trips in their crude crafts, some historians claiming that this continent was visited by them, even before Columbus discovered it—the controversy over the Norse Stone of Yarmouth, which recently was sent to Norway, and which claimed the most violent partisans, possibly lending color to this claim. At any rate, in the 14th Century, there is a record of English fishermen coming to Iceland, and, after the landing of John and Sebastian Cabot, they visited and fished off the shores of what was then called "Baccalaos," the land of dried cod-fish, now known as Newfoundland, and the coasts of Nova Scotia, New Brunswick and Maine.

To-day the United States and Canada are facing the problem of a meat shortage. In the Chicago market alone, there is a shortage of 15,000,000 calves. Supposing that every calf was conserved for four years, it would take that period to even catch up the supply, and, of course, that is an impossibility—to conserve every calf.

With this shortage of meat in view, the next thing is to educate the people to use more fish on their tables, and here come the possibilities of the Canadian fisheries and the advantages which are offered by the use of fish as a food. It is passing strange that with the vast wealth of the ocean at our very doors, so to

speak, native Canadians have not a very strong taste for fish, and have little or no knowledge of the value of fish as food. They seem to be obsessed with the idea that to become healthy and strong, meat must be the chief article of diet. Nothing could be more erroneous. Fish is rich in nitrogenous food, and at a much lower price supplies energy to carry on the every day tasks of life, and for young persons is a highly nutritious tissue builder. For instance, fish is only about 2 per cent less in nitrogenous elements than meat, and a pound of cod steak will furnish almost as much of nourishment as a pound of beefsteak, but when the prices are compared the ratio is entirely different. Halibut, which, of course, is a more expensive fish than cod, but rarely more than one-third as expensive as meat, is even richer in nitrogen than meat.

Every day the fact that fish food is being more appreciated is being demonstrated, as there are many varieties of edible fish being used at present which some years ago were thrown away. The demand for green and smoked fish, too, is growing greater every year, a fact which was recently recognized by a dishonest dealer, who dyed codfish a nice rich brown, to resemble smoked salmon.

It is a funny thing about fish as food, that, if it has not a pleasing name, it will not meet with favor as food, and yet if people eat it and do not know what it is, they appear to find it palatable enough, even dogfish being accepted, when disguised. The fish trade is no trade for an innocent to contend with, as many jokes have been played on the misleading names of "Digby Chickens," and "Bombay Ducks," the unwary purchaser thinking he is surely going to buy poultry when he hears these names.

It is safe to predict, however, that the day is rapidly approaching when fish will form an important portion of the daily food of our people, and when that day comes, there will be a steady and rapid growth of the fishing industry.

The total value of all kinds of fish marketed by Canadian fishermen during the fiscal year ending March 1915, was $31,057,550, of this Nova Scotia contributed $7,730,181, New Brunswick $4,940,083, and Prince Edward Island $1,261,666, and it is estimated that over 84,000 persons engaged in this business, and that $22,000,000 is invested in the sea fisheries.

How many persons are there that ever dreamed that that much money was represented by the Canadian fishing industry?

European fish of all kinds are scarce, and there is a sharp demand for fish for Mediterannean ports, and the sailing vessels are coming in to their own once more as fish carriers, many of the steamers that were engaged in this business before the war being now requisitioned for other service. A number of our vessels have been chartered at Newfoundland for this trade, the usual charter for these vessels is, coal from Louisburg to Newfoundland, thence dryfish to Italy, Oporto or Spain, after which on the return passage, they generally load salt for the Lunenburg merchants for the use of the bankers, next spring. There have been several vessels sold from here to Newfoundland purchasers, among these being the "Douglas Adams," "Henry L. Montague," "Gladys and Lilian," and "Hazel L. Retcey," the latter being the fourteenth vessel purchased in Lunenburg by Captain J. H. Young, of St. Jacques, Nfld., which is a pretty fair advertisement for Lunenburg builders. Despite this fact, the fleet does not diminish, as they are steadily replaced, Messrs. Smith & Rhuland having two on the stocks at present, as well as a steamer for La Have Steamship Company.

The Marine Railway is kept busy overhauling and repairing the schooners, and Lunenburg is secure in the knowledge that there is no lack of work or money for its citizens. Several of the vessels are engaging in the fall fishing trade, although this is an industry that can and should improve.

The two boneless fish factories here are doing a rushing trade. At Robin Jones and Whitman's, the demand is very brisk, and they are shipping to Winnipeg, Edmonton, Calgary and Vancouver, as well as Toronto and Quebec.

G. J. Mason's fish plant, situated in one of the most beautiful and picturesque parts of Nova Scotia, has a fine business, and the product of both these houses has no superior.

The Lunenburg captains, who have held out for high prices, will be the ones to reap a harvest this year.

The following is a statement for the fleet for 1915:

Vessels.	Captains.	Quintals.
James Burton Cook,	Cook	4,000
James Douglas,	Romkey	3,100
Harry W. Adams,	Zink	3,000
Lilian B. Corkum	Corkum	3,000
Douglas B. Creaser,	Creaser	3,150
J. D. Hazen	Himmelman	3,120
Muriel E. Winters,	Winters	2,900
Elsie B. Corkum	Corkum	2,550
Ada M. Westhaver,	Westhaver	2,350
Allison H. Maxner,	Maxner	1,700
Earl Gray,	Shupe	1,700
Lloyd George	Himmelman	1,450
Arcana,	Hebb	1,800
Marion Mosher,	Mosher	2,650
Muriel B. Walters	Walters	1,400
Frances W. Smith	Mossman	2,600
Marjory E. Backman,	Backman	2,450
Clintonia,	Mack	2,600
Cecil L. Beck,	Beck	1,950
Eva June,	Schnare	1,850
Russel H. Pentz,	Pentz	2,150
Elsie M. Hart,	Corkum	2,900
Frank H. Adams,	Creaser	2,150
M. M. Gardner,	Backman	2,350
W. C. Smith,	Selig	2,700
Hawanee,	Cook	2,250
Henry M. Montagne,	Knickle	1,900
W. T. White,	Knock	2,800
Delawana	Cook	2,900
Revenue,	Mossman	2,400
Assurance,	Zinck	1,750
Carrie E. Hirtle,	Hirtle	2,500
W. H. Smith,	Nass	1,950
Revenue,	Lohues	1,700
Benevolence,	Corkum	2,700
Artisan	Walters	1,450
F. M. Toro,	Corkum	2,750
Araminta,	Creaser	1,310
W. C. McKay,	Diehl	2,100
Uda A. Saunders,	Spindler	2,000
Lauretta Frances	Spindler	2,600
Wautauga,	Backman	2,050
Arcola,	Knickle	2,300
Marian Adams,	Knickle	2,700
Warren M. Winters,	Silver	2,675
Marian Silver	Silver	1,850

R. L. Borden,	Himmelman	2,950
Lottie Silver	Silver	1,050
Donald L. Silver,	Silver	1,875
Hazel L. Ritcey	Ritcey	2,000
Metapedia,	Backman	1,050
Associate,	Backman	3,000
Jennie E. Duff,	Himmelman	2,350
Lowell Parks,	Parks	1,950
Vera J. Himmelman,	Conrad	2,500
Gladys B. Smith,	Oickle	2,100
Mantanzas,	Wentzell	1,350
Annie L. Spindler,	Spindler	1,850
Itaska,	Ritcey	2,350
A. G. Eisenhauer,	Sarty	1,450
Passedena,	Wentzell	1,900
Viola May,	Wentzell	2,000
Phyllis Westhaver,	Westhaver	2,900
Evelyn Miller,	Miller	1,700
Original,	Conrad	1,850
Elsie M. Porter,	Eisenhauer	2,000
Frank H. Brinton,	Gilfoy	1,900
H. H. MacIntosh,	Weinacht	2,350
Douglas Adams,	DeCoursey	1,400
Jennie E. Ritcey,	Ritcey	2,925
Elsie Birdett,	Wentzel	1,650
Gigantic,	Parks	1,800
Marjorie E. McGlashen,	Wamback	2,400
Alfarett,	Weinacht	1,100
Mary Flemming,	Zinck	1,500
Helen M. Coolen,	Coolen	2,250
Norma E. Coolen	Coolen	2,150
Tipperary,	Walter	750
Pearl Beatrice,	Hubley	490
Amy B. Silver,	Silver	1,700
Caranza,	Conrad	1,600
Warren G. Colp,	Colp	2,000
Granite,	Richards	2,200
Golden West,	Getson	1,600
Dorothy Sarty,	Sarty	1,450
Minnie Mosher,	Bowers	1,200
Monarchy,	Lohnes	1,400
Clark S. Corkum,	Corkum	1,450
Douglas L. Conrad,	Conrad	1,750
Ella May,	Hubley	750
Nobility,	Croft	700
Carl S.,	Schmeisser	1,100
E. B. Walters,	Walters	2,000
Cento,	Fralic	1,450
Falcon,	Walters	1,100
J. B. Young,	Himmelman	1,800
Loyola,	Fralic	1,350
J. W. Margeson,	Conrad	1,700
Ella Mason,	Publicover	875
W. G. Robertson,	Publicover	1,100
Guide,	Getson	1,000
Marina,	Greek	1,100
Abacenia,	Romkey	1,200
Mankato,	Walters	1,000
Emily M. Selig,	Selig	1,150
Folka,	Conrad	1,550
Mattawa,	Zinck	1,000
Otokio,	Ernst	1,750
Mary and Mildred,	Conrad	1,200
Dorothy Adams,	Tanner	1,800
Lucille B. Creaser,	Creaser	2,475
Marion Helena,	Burgoyne	1,200
Louis H. Smith,	Westhaver	1,800
Leta J. Schwartz,	Schwartz	1,200
Edyth Marguerite,	Rittcey	1,100
John Parker,	Haughn	1,400
Aranoka,	Sarty	1,600
Total		227,245

CHANGE IN NEW BRUNSWICK LOBSTER FISHING LAWS.

On Nov. 11th., His Royal Highness the Governer General In Council, under and in virtue of the provisions of section 45 of the Fisheries Act, 45 George V, Chapter 8, is pleased to order as follows:—

Subsection 1 of section 8 of the Special Fishery Regulations for the Province of New Brunswick, adopted by Order in Council of the 9th February, 1915, is hereby rescinded, and the following substituted in lieu thereof:—

"1. (a) No one shall fish for, catch, kill or sell lobster, from the 16th day of June in each year, to the 14th day of November following, both days inclusive, on and along that portion of the coast of the water thereof, of the Province of New Brunswick, embraced and included within the County of Charlotte, nor shall any one within the above described limits fish for, catch or kill at any time any lobster or lobster, the carapace of which measures less than 4¾ inches in length."

" (b) No one shall fish for, catch, kill or sell lobsters from the 1st day of June in each year to the 14th day of November following, both days incluisve, on and along that portion of the coast or the waters thereof, of the Province of New Brunswick, embraced and included within the County of St. John, nor shall any one within the above described limits fish for, catch, or kill at any time any lobster or lobsters under nine inches in length, measuring from head to tail, exclusive of claws or feelers."

HALF MILLION POUNDS OF HALIBUT COMING FROM PRINCE RUPERT.

Prince Rupert, B.C., Nov. 17. — A new fishery record for the Port has just been made, over half a million pounds of fresh halibut being landed here in two days. Just as fast as the fish can be packed in ice and placed in refrigerator cars, it is being sent to the Eastern markets. Seventeen car loads of halibut, the greatest single shipment ever made, left on two trains over the Grand Trunk Pacific. The big catches have followed a period of rough weather on the fishing banks. With better conditions prevailing the water front here presents an active appearance both day and night, many of the ships bringing in over 100.000 pounds of halibut. There is little difficulty in disposing of even these big catches as the markets in Chicago, New York, Montreal, Toronto and other large cities now look forward to consignments of Prince Rupert halibut, the method of transportation in Canadian Express Refrigerator cars guaranteeing perfect condition.

Even the sea is being impressed into the service of the supply of munitions. I hear from San Francisco that the kelp crop of the Pacific Ocean is to be harvested in order to obtain an ingredient used in making ammunition for the warring nations of Europe. — Neptune in Shipping World.

Commercial Aspects of the Canadian Fishing Industry

Address delivered before the Commission of Conservation, Ottawa, by Mr. D. J. Byrne, President, Canadian Fisheries' Association.

Mr. Chairman and Gentlemen,—When requested by your committee recently to deliver a short address on the practical problems connected with the sale and distribution of fish, it occurred to me that you had indeed given a wide latitude, as the practical problems are so many and so varied that they might well be a task beyond my ability.

The difficulties connected with the production and distribution of perishable fish products include the quick and proper handling at points of production as well as transportation to our inland centres and the distribution therefrom, through regular sources, to the consumer.

In recent years much progress has been made in improving the methods of taking the fish and especially do I refer to deep sea fishing for what are known as ground fish, including cod, haddock, flounders, witches, hake, pollock, etc., by the introduction of steam trawlers, several of which have been operated during the past few years off the coast of Nova Scotia. Formerly the catch was almost entirely secured by fishing vessels operating dories, from which trawls were set, each trawl carrying from 1,000 to 1,500 baited hooks, attached to the main line by gangings set about 3 to 6 feet apart.

The frequent scarcity of bait and the difficulty experienced in securing the same very often caused the complete cessation of fishing, and at such time the fleet, numbering from 50 to 100 vessels, might be held in ports for weeks, due to lack of bait. This trouble was partly overcome by the establishment of bait freezers, subsidized by the Government, where bait could be frozen and carried to provide a supply during any temporary scarcity, but this difficulty has not been entirely overcome, and will exist at certain seasons of the year.

Another source of annoyance and loss to the fishermen is the prevalence of dogfish, which appear at certain periods of the year in large schools, and while this pest lasts—at times from two to six weeks, the length of time varying in different localities—the fishermen will not set their trawls for cod, haddock, or other food fishes, because the dogfish destroy any other species on the trawls and when taken also destroy the trawls to such an extent that they become practically a total loss.

The establishment in recent years of reduction plants at principal points has made it possible for fishermen to use special trawls for taking dogfish, which are sold to the reduction plant and by them converted into fertilizer. This has helped to a large extent to remove one of the greatest terrors of the deep sea fishermen, but the trouble still exists and at times is the cause of heavy losses to fishermen, through the loss of their gear.

Frequent storms and gales prevailing along the coast are very often a source of loss, since the fishing fleet is compelled to remain in port until these storms subside, because it is not only dangerous, but practically impossible to do any dory fishing while they last. This refers to the method of fishing with vessels carrying from 6 to 12 dories, each dory manned by two fishermen, who bait and set the trawls from these frail craft, lifting them to remove the fish and rebait at intervals of from three to six hours, according to the location and the prevalence of the fish on the banks where they operate.

After lifting the trawls the dories return to the vessel with their catch, which is then gutted to remove the entrails and packed in ice or salt, which will keep it in good condition until the vessel returns to port. Prevalence of dogfish also affects fishing from shoreboats, which, as the term implies operate in bays and inlets near the home port. Dogfish always run in large schools and they not only chase all other kinds of edible fish, but destroy nets, trawls and other gear used by fishermen when plying their hazardous trade.

With the introduction of steam trawlers, using the Otter trawl, which is a bag-like contrivance made of strong rope and weighted to keep it near the bottom. The Otter trawl is dragged at a considerable distance behind the vessel, which steams at a slow speed and is stopped from time to time in order to lift the trawl and remove the fish to the deck of the vessel. This method obviates the necessity of using bait and also permits fishing to be carried on during stormy or rough weather, so that the supply is more regular, although cost of these steam trawlers, as well as expense of operating them are necessarily much higher than the older method.

A large and profitable trade has been carried on for more than one hundred years in our Canadian codfish, which is cured by salting and drying for foreign markets. These fish find a ready sale, not only in the various Mediterranean ports, but also in the West Indies, Brazil and other South American countries. Large quantities of codfish, haddock, hake and pollock are also salted and partly dried for the requirements of the United States markets, while on the Pacific Coast during the last 30 years there has been built up a very large and profitable fishing industry in connection with our Pacific salmon, which is now exported to nearly all parts of the world in cans. A profitable business has also been developed in mild cured, or pickled salmon, quantities being exported to Central European countries, while in more recent years another important industry has been built up in the handling of fresh and frozen halibut and salmon. Large cold storage plants have been established, where the fish are frozen promptly after being taken and are later shipped in refrigerator cars to all parts of Canada and the United States, while within the past few years some trade has been developed for export to Europe.

In our Great Lakes there is a very large fishing industry carried on, not only during the summer and

fall months, but also in mid-winter, when the fish are taken through the ice and owing to climatic conditions these fish can be transported long distances without requiring expensive methods of refrigeration. They are frozen naturally as soon as taken from the water and are shipped to various centres in the United States, especially to the Western States, although there is growing demand for Canadian lake fish in Eastern markets also.

I regret to say that the greater part of the Canadian Lake fishing business is controlled by United States firms, and this is due to the fact that more than 90 per cent of the total output finds its market in the United States.

We are mostly concerned here with the fishing trade and the distribution of fish as it affects Canadians, and in this connection the question of transportation becomes a very important factor. Owing to the great distances which our fish products have to be carried, also to the sparse population, the cost of handling and delivering to the centres where these fish are consumed, is necessarily high. During the spring and summer months and until cold weather sets in, a large portion of our fish have to be transported by Express at very high transportation rates, which frequently amount to as much, or more than the initial cost of the fish at point of production.

In former years, when transportation facilities were not what they should be, it was of frequent occurrence that the quality of the fish became seriously affected while in transit, due to the method, or rather lack of method, in which they were carried. I am pleased to say that conditions in this regard have improved very materially and with better transportation facilities it is now possible to have the fish carried great distances in comparative safety, so that they reach distributing markets in first class condition.

Refrigerator cars are supplied at important shipping points for the transportation of fresh and mild cured smoked fish. These cars are provided with bunkers or ice chests at either end of the car, which are filled with ice at shipping points and through the medium of icing stations placed along the lines of railway companies, the supply of ice is renewed from time to time, thereby providing regular cool temperatures during the time they are in transit.

As an instance of this method, I might say that refrigerator cars containing fresh halibut are shipped regularly from Pacific Coast points, like Vancouver, Steveston, New Westminster and even as far north as Prince Rupert, to cities in the East like Toronto and Montreal, and although the fish are in transit from 4½ to 6 days, if in fresh condition when shipped from starting point, they will reach destination in good saleable condition.

Iced refrigerator cars are also provided at Mulgrave and Halifax, N.S., as well as at St. John, N.B., for carrying fresh fish to points in Quebec and Ontario, while similar cars are now used to carry frozen fish from points on both the Atlantic and Pacific coasts to the interior, salt being added to ice in bunkers of the cars and by replenishing the supply of ice and salt in bunkers of these cars at regular intervals while in transit it is possible to move cars of frozen and smoked fish from Mulgrave and Halifax to points as far west as Winnipeg and Calgary during the months of September, October and November without any deterioration to quality of the contents.

While good facilities are afforded for the shipping of fresh and frozen fish in car lots, there is still room for improvement on small shipments which are carried by express, because express companies do not supply any refrigeration or modern methods, the fish being carried with other goods in the same car in which the messenger rides, and these cars are heated, so that the quality of the fish is very often impaired by the time is reaches its destination.

The express companies, who do a profitable business in carrying fish from many points should be compelled to provide suitable refrigeration, and it has been proved possible that by dividing the express car one portion can be equipped with bunkers for ice, thereby ensuring similar safe conditions as refrigerator cars which are used on the freight service.

While on the subject of transportation, it would be well to mention the great assistance rendered by the Government to the fishing industry and the many advantages derived therefrom; realizing that cost of transportation by express increases the price of fish to consumers at points far distant from the source of production and thereby curtails the demand, the Naval Service Department of our Canadian Government pay 1-3 of express charges on all fresh or mild cured smoked fish with a view to increasing the sale and consumption of fish at inland points.

Results obtained far exceeded our most sanguine expectations and the increased sale of both fresh fish and smoked fish, such as haddies, fillets, etc., which are cured from fresh fish and are consequently highly perishable, has been so great as to justify the expenditure made with this end in view. The payment of 1-3 of express charges by the Government is intended to reduce cost and thereby foster a greater demand for fish, so that consumption would increase to a point where carload lots could be forwarded in lieu of smaller quantities, it being assumed that when the business had been developed to a point where carload lots could be handled the question of transportation charges would right itself, because the larger quantities, it was assumed, would secure lower transportation rates.

The Canadian Government assumes responsibility for 1-3 of the express charges on Canadian fish from the Atlantic Coast to all points as far west as Toronto, and from the Pacific Coast as far east as Winnipeg, but when quantity in one shipment amounts to 20,000 lbs., which is minimum weight for carload, this Government assistance is withdrawn, for reasons which I have already stated.

Unfortunately the expected result has not always been attained, and I have in mind instances where carload lots shipped by express to Montreal from point of shipment in Nova Scotia were charged at full express rate for smaller quantities and the express company learned that the Government declined to pay 1-3 of the charges, in view of the fact that the shipment amounted to a sufficient quantity for a carload lot.

In my opinion, express companies should be compelled to quote a lower rate on car lots than they charge on smaller shipments, because it is not always possible to use the freight service in view of the distances traversed and consequent length of time the fish must be in transit.

Distribution.

Methods now obtaining for marketing the fish at producing points is to ship quantities to centres where distribution can be made more readily and under best conditions; in most of the large cities wholesale firms

have modern cold storage facilities for the safe handling and carrying of fish, and these in turn distribute to retailers in the various cities, as well as to small towns and villages within a certain radius.

Before re-shipping the fresh fish are packed with ice in suitable carriers and are delivered to the retailer within a few hours, the time varying according to distance. While at some seasons, such as during the winter months, the fish can be carried safely by freight but it is necessary that transportation be made by express during a large portion of the year, to insure prompt delivery.

It might be said in connection with the distribution to the ultimate consumer the methods now obtaining vary to such an extent as to leave no room for comparison. While it is claimed by some that the distribution of fish to consumers should be made from special fish shops, or markets, it must be remembered that this is not possible while the demand is of limited proportion and in my opinion much larger quantities will be consumed by obtaining the widest possible distribution through the medium of dealers handling other commodities, provided, of course, that sufficient care and attention is given to the handling of such a highly perishable product as fresh fish.

In our country the sale of fish has not assumed anything like the proportion that should obtain, in view of the fact that fish is not only an excellent substitute for high priced foods, like meats and poultry, on which prices are continually advancing, but also because fish is an excellent food, containing all the necessary nutritive properties, and should become a staple article of food in our Canadian homes, instead of being, as at present an occasional substitute, or in some cases a compulsory change from the regular menu.

No great difficulty has to be overcome in obtaining this wide distribution and thereby increasing the consumption of fish, since the butchers' shops and other stores where perishable products are sold are compelled to have a supply of ice—this being the only requisite for handling fish in a satisfactory manner.

It has been proven beyond doubt that fish can be handled and the fish department made a distinct success in departmental stores in the large Canadian cities, as well as a great many cities in the United States, and this being the case it is only necessary for the dealers who wish to develop a trade in fish with their customers, to set apart a small portion of their store or shop where a fish department can be installed with very little expense, simply by placing a suitable refrigerator box, preferably with a glass cover, in which the fish can be carried, packed in crushed ice, thereby assuring desirable temperature and by keeping the fish away from the flies, dust, etc., ensuring the keeping quality, so that it will reach the consumer in good condition.

With the addition of a block on which to cut the fish and a special scale for weighing them, a fish department is installed with very little expense, while providing all that is required.

By careful methods the handling and distribution of the fish from its source of production, through the wholesale and retail dealers, it will reach the ultimate consumer in good condition and prove economical and tasty and at the same time help to avoid the oft heard complaint with regard to the high cost of living.

If we can succeed in educating the public to the value of fish as a regular food supply and an economical substitute for meat, we will not only furnish our Canadian people with an excellent food at a low cost, but we will, at the same time help to develop one of our great natural resources, which is the highest form of true patriotism.

FISH CULTURE.

Artificial fish culture is a necessity in connection with some of Canada's best food and game fishes. This is due in the first place to over-fishing. Then many of the feeding and spawning grounds in the lakes and rivers have been ruined by the careless deposition of industrial and other wastes. These conditions apply especial force to such lake species as the whitefish, one of the finest of the food fishes. In 1915, approximately 281 million whitefish fry were distributed in the Great Lakes. During the present season three new hatcheries are in operation. One of these, situated near Kenora, Ontario, was designed for the propagation of whitefish and has a capacity of 70 million eggs. A second, at Thurlow, near Belleville, Ontario, replaces a smaller one that had been in operation in former years at Newcastle. It will accommodate eight million salmon trout and over 60 million whitefish, and the third, in Qu'Appelle Park, has a capacity of 50 million eggs.

CATCHING FISH BY MIRRORS.

A Lindsay Ont. disciple of Izaak Walton has struck on a new idea by way of catching fish, without hook or line, and as he has a patent pending on the invention he is not afraid to give the secret to the public. He will place a mirror in the water of a lake or stream, and in front of it a plate glass slanting at an angle of 45 degrees. The bait will be placed between the two. As the fish approaches he will see his image in the mirror, and thinking it is another fish that is after the coveted morsel will act promptly by making a quick dash for the bait, striking the plate glass and sliding up into a net placed at the top.

SOME FACTS ABOUT OCEAN DEPTHS

The greatest ocean depth yet sounded is 31,200 feet, near the island of Guam. If Mount Everest, the world's highest mountain, were plucked from its seat and dropped into this spot the waves would roll 2,000 feet about its crest. Into this terrible abyss the waters press down with a force more than 10,000 pounds to the square inch. The staunchest ship ever built would be crumbled under this awful pressure like an egg shell under a steam roller. A pine beam fifteen feet long which held open the mouth of the trawl used in making a cast of a depth of more than 18,000 feet was crushed flat as if it had been passed between rollers. The body of the man who would attempt to venture to such depths would be compressed until the flesh was forced into the interstices of the bone and his trunk was no larger than a rolling pin. Still the body would reach the bottom.

A FISHY TELEPHONE STORY.

"I believe," said the impatient man, as he put aside the telephone, "that I'll go fishing."

"Did'nt know you cared for fishing."

"I don't ordinarily. But it's the only chance I have of finding myself at the end of a line that isn't busy." —(Washington Star).

Who's Who in the Fishing World

"Why don't you ask F. W. Bissett?" That is the question which sooner or later greets the inquirer into the fishing industry of the Maritime Provinces. It is the penalty that Mr. F. W. Bissett, the genial head of the firm of F. W. Bissett & Company, Halifax, pays for being a cyclopedia of information on the Eastern Canada and Newfoundland fish industry. A hackneyed phrase may be applied to him with literal truth—What he doesn't know about the industry is not worth knowing.

Mr. Bissett's grandfather was employed largely in the fishing trade at River Bourgeoise, Richmond County, Nova Scotia. He owned a large number of sailing vessels and shipped cod and other fish to the West In-

dies and to various South American ports. His father also carried on business at River Bourgeoise and subsequently at Halifax.

Mr. Bissett's entrance into the trade was made as the representative in Newfoundland of one of the largest English fish importing houses. After serving in this position for some time his capacity for steady work, sound judgment and absolute integrity brought him to the favorable notice of the large exporting firms at St. John's. Three of these firms who were exporting vast quantites of fish to various Italian ports finally persuaded him to go to Italy as their representative.

After a year of strenuous work in Italy, Mr. Bissett resigned his position, much to the regret of his employers and came to Halifax where in 1905 he established the firm of which he became the head. The firm handles all kinds of fish and also fish oils. The oils are cod and seal oil. The seal oil is obtained principally from the Magdalen Islands. The seals seem to strike in there periodically — generally once in every six years. "In 1909", said Mr. Bissett, "about 60,000 seals were caught in those islands while during this past season the catch would not be much over 4,000 seals." The cod oil is obtained from the cod livers, but is not cod-liver oil. In obtaining the cod oil the livers are tried out in the sun. In the manufacture of cod-liver oil the livers are steamed while fresh. The firm owns three-masted vessels which are engaged in the foreign trade.

"There are many problems in the fish industry," said Mr. Bissett, "but perhaps the chief problem down here is the proper handling of the fare by the fishermen. It must be admitted that our fishermen are deficient in the knowledge of the proper methods of cure. The dressing of the fish is the important factor in marketing to advantage. In Norway, Shetland Islands, Faroe Island and Iceland the fish are all split and salted alike and the consequent uniformity in dressing helps greatly in selling the fish to advantage. Our fishermen have gotten into slip-shod habits which have come down from father to son.

"At the same time in my opinion all the blame does not rest with the fishermen. The exporters must shoulder a portion of the responsibility for the present conditions. If the exporting firms would agree on a standard classification for dressed fish there can be no doubt that an improvement would follow. I mean that if the buyers would purchase only fish that had been split and dressed properly the workers would be compelled to amend their mode of dressing accordingly. The buyers have it in their power to revolutionize the industry and in my opinion the time is not far distant, when some step in this direction will have to be taken.

"Technical education of a practical kind would have a beneficial effect in the future. But really my experience leads me to think that our fishermen's actual knowledge is away ahead of their practice. They know better than their slip-shod methods would lead one to think, but they are careless and have the fixed idea that 'any old way' of curing is good enough. Now it is up to the buyers to enlighten their understanding on that point."

Mr. Bissett was educated in the public schools of Nova Scotia and at St. François Xavier University of Antigonish. He is a graduate in Art of the latter institution. His wife was Miss Ethel Gray Smith of Port Medway, Nova Scotia. In religion he is an adherent of the Church of England and in politics gives independent support to the Liberal party. The only club he has joined is the Waegwoltic of Halifax, a popular aquatic organization. "My principal recreation is work", said he. "I haven't had a working day off for fully ten years."

"The fishing industry," said Mr. Bissett, "has of late been undergoing radical changes. Only a few years ago the principal trade was confined to dry salted fish and pickled fish. Today more and more of the

product is shipped fresh in a frozen or chilled condition. With the present means of transportation I don't regard the frozen fish as so healthful an article of diet as the salted product, owing to the risk of becoming unsound in the course of shipment during warm weather. However, improved methods of handling and transportation will before long eliminate any chance of deterioration."

Through some mishap a very interesting article for this section of the Canadian Fisherman got astray last month, and we have made every effort to make amends for the mishap in the interest of our readers.

THE CANADIAN FISHERMAN is now quite well known in our sister province and as our readers must have noticed, we are devoting a good deal of space to the Ancient Colony.

The fact is, Newfoundland has never received the attention to which it has a right, from the Canadian press. Realizing this we are "doing our bit" to give publicity to the fishery items of the Colony, and with

this in view we have secured the services of the best writers in the Island to supply us with reliable information.

We give to our readers in this issue a few facts regarding one of the great personalities of Newfoundland at the moment — one whose name is mentioned more frequently than any other public individual, whose efforts in the recent campaign for prohibition did more for the cause than all the other elements together, whose articles were more widely read than any other during this big campaign,—we mean Mr. W. F. Coaker, President of the Fisherman's Protective Union, Director of the many subsidiary organisations of this large institution, and, though it seem a paradox, the most highly revered and the most supremely detested man in the Ancient Colony.

Mr. Coaker is revered by the fishermen, but he is spurned by certain interested parties owing to his influence in endeavoring to bring about an amelioration in the conditions of the fishermen throughout the Colony, which in former days were somewhat peculiar.

W. F. Coaker was born in St. John's in 1871 and before he was ten years old, he was earning his living by selling newspapers and working as a fish handler on the wharves. Working in the summer months enabled him to go to school during the winter, and in this way he educated himself. At thirteen years of age, he became a clerk in the employ of McDougall and Templeton with whom he remained for some years. As he enjoyed the confidence of his employers he was selected by them as their representative in Notre Dame Bay.

Before his twentieth year, Mr. Coaker started in business on his own account; but the famous Bank Crash which brought such disastrous results to so many outport and city merchants sent W. F. Coaker to the wall. His resourcefulness however kept him going. He engaged in farming at Coakerville and in order to obtain the requisite knowledge in this line he came to Canada and took a course at the Agricultural College in Geulph.

Returning to Newfoundland, he then studied telegraphy and became a Government Postal operator at Port Blandford. Whilst engaged in this occupation he established the Telegraphers' Union and published a little newspaper known as "The Telegrapher." Having been identified with the Liberal Party, Mr. Coaker, when the opposite party came into power, got his congé, and he then returned to his farm and fishing.

Whilst thus engaged he conceived the idea (in 1908) of organizing the immense Union of which he is now the President, viz.—the Fishermen's Protective Union.

The beginnings of this organisation were distinctly modest. The original membership was Nineteen, whilst at present time—after some seven years of existence, — it numbers 22,500.

The Fishermen's Protective Union is the largest Fishermen's organisation in the world. Its influence in the Colony of Newfoundland is really marvellous. It is not simply an organisation as a medium of mutual benefit. It is a wonderful political power in the Colony. It has a strong and formidable party in the local Assembly, and through Mr. Coker's influence largely, a great deal of legislation beneficial to the fishermen has been introduced. Mr. Coaker is the author of the Sealing Bill which was one of the most radical legislative changes ever made in Newfoundland; he has likewise had important regulations made in the matter of logging for the large lumber companies and various other useful measures come from him. But he is known best as the President of the Fishermen's Protective Union and the Editor of two organs which represent the fishing interests. The MAIL and ADVOCATE and the weekly paper THE FISHERMEN'S ADVOCATE. These papers go into a large section of the fishing communities and are regarded as the vade mecum of the fishermen.

SARDINE DEFINED. ..

Only a sardine will be a sardine hereafter, according to a warning sent to the Trade and Commerce Department by Harrison Watson, Canadian Trade Agent in London, who refers to French and English decisions on the sardine question. A sardine is the young of immature pilchard, according to the verdict of a sardine congress at Nantes, and legal proceedings are promised if there is any masquerading in the future.

THE FISHERIES' FORUM

LETTERS TO THE EDITOR.

FEDERAL AND PROVINCIAL LAWS CONFLICT.

To the Editor, Canadian Fisherman, Montreal:

Can you inform me who is appointed by the Federal Government regarding the enforcement of the laws enacted for the protection of the fish in this country, and if this officer has jurisdiction on matter pertaining only to the country, or if his power extends also to the Provinces, as I understand there are also laws enacted by the different provinces of the Dominion regarding the same object. This being the case, have not the Provincial Governments their own officers as well. Here is the point I want to be enlightened about. I receive some fish which is against the law. I reside in a Province where the law states that this particular kind of fish is prohibited, but it was caught in the next Province, where it is allowed to catch, and sell this fish.

Who is the officer of the law in this case that should make the seizure? Or, in other words, is the offence under the jurisdiction of the Provincial or Federal laws?

This point is important to the trade, and once it is decided, it will relieve much anxiety and vexations that the fish trade has been subjected to in the past, and is still subjected from the hands of too zealous officials ,whose main object is to apply the written law, without any discretion, ignoring the spirit of same entirely, or the purpose of same. Often I am inclined to think just for the sake of finding somebody at fault, or show the necessity of their mission, never taking into consideration that by their action they deprive the community of a certain economic value and destroy property which has cost someone efforts, time, labour and money.

Yours very sincerely,

J. A. PAULHUS.

EXPRESS SUBSIDIES ON FISH.

The Editor, Canadian Fisherman:

Dear Sir,—I have read, with much interest, an article appearing in your issue of October, entitled, "Why Not Fish Too," in which the writer of this article endeavors to explain why it would be advisable for the Department of Naval Service to withdraw the subsidy of 33 1-3 per cent on less than carload shipments of fresh fish from the western coast to Manitoba and from the Atlantic coast to Ontario and Quebec points. The writer of this article, Mr. Douglas, of Winnipeg, feels that if this money was diverted to an advertising campaign, it would arouse more public interest than by the Government subsidising these less than carload rates on sea fish, as referred to above.

I think I am quite safe in voicing the sentiments of the fishermen, and those interested in producing sea fish from the Atlantic coast, when I say that it would be a grave mistake, at this time, to withdraw this assistance, which was, I understand, primarily arranged with a view to allowing the dealers to get fish to the inland points at reasonable prices, and with a view to increasing the consumption of sea foods.

Conditions on the Atlantic coast are very different to the conditions existing on the Pacific coast, where there are a number of small concerns who are dealing direct with the trade, and who have a number of fishermen in their locality who are dependent upon their success for their living, and I am quite safe in saying that this subsidy on small shipments of sea fish, from the Atlantic coast to Ontario and Quebec, has been the means of largely increasing the sale of a number of varieties of fish, produced on the Atlantic coast, to small towns and cities throughout the Province of Quebec, and particularly throughout Ontario.

If the shippers of fish from the Pacific coast feel that this subsidy is unnecessary, it should not in any way be intimated that the shippers of fish from the Atlantic coast are in accord with their views. If the general impression is that the subsidy should be withdrawn on shipments of fresh fish from the Pacific, it is certainly not the views of the Atlantic shippers, or the dealers throughout Ontario and Quebec, that this subsidy has not accomplished the work it was intended to do. I believe it would be a great mistake to interfere at the present moment, with the arrangement, especially from the Atlantic, considering the high cost of all classes of food products.

It is intimated in Mr. Douglas' letter, that this Government subsidy has not been the means of reducing the cost of sea fish, but I can assure the writer, that it has not only been the means of reducing the cost of staple fish foods, such as cod fish, haddock and other Atlantic sea products, but it has also been the means of getting this product distributed more generally throughout the Provinces of Quebec and Ontario, but not yet to a point where these sea foods have definitely taken a place in the homes of the consumers. By all means leave the Express Subsidy from the Atlantic coast as it is, for a few years, until such time as the dealers and the fishermen are really going to get the benefit, because if it was withdrawn at the present time, especially from the Atlantic coast, it would be like wasted money, especially when the results are just ready to become effective.

I am quite sure that the article written by Mr. Douglas was written, as it were, with a view to food for thought, without knowing, or perhaps taking into consideration the number of small shippers, and the number of dealers in the East who have for years handled fish, and dealt in the business in a direct way. We may further add, that it may not be known to the writer of this article that the shippers of fish from the East have no carload rate shipments, as the rate is the same on 300 pounds as it would be on ten, fifteen or twenty thousand pounds. The writer of this article is strongly in favor of an advertising campaign, and believes at this moment it would be effective, and would be the means of increasing the consumption of Canadian fish, shipped through Canadian transportation companies to Canadian people, and generally speaking follow out the much advertised slogan "Made in Canada."

Yours truly,

ALFRED H. BRITTAIN.

THE MODUS VIVENDI.

Editor, CANADIAN FISHERMAN,
Montreal, Que.

Dear Sir:

My attention has just been directed to an article which appeared in the November issue of your journal, entitled "Building up a Fish Business" written by M. H. Nickerson, in which the writer devotes quite a portion of his letter to the alleged opposition of the Digby Board of Trade and myself to the agitation that has taken place regarding the granting of the Modus Vivendi to American fishing vessels using auxiliary power.

The source from which Mr. Nickerson received his information regarding my views in connection with this matter has been most unreliable, for I have never offered any opposition to the question under discussion at a meeting of the Digby Board of Trade, nor to my knowledge has the Board ever taken an action in connection with the same; neither was I ever present at a meeting of the Canadian Fisheries Association when this subject was under discussion. Therefore I am at a loss to understand why Mr. Nickerson should single me out as being so opposed to this question.

He also states that I was very much in favor of granting licences to American vessels in British Columbia, giving them the privilege of landing their fish in that province for shipment in bond, etc. and states that I took an active interest in carrying this to a successful issue and infers that my recent visit to Prince Rupert had to do with this matter. Again he is very much in error for I had nothing whatever to do in this connection. I am of the opinion that the people of British Columbia are quite capable of looking after their own interests. It is quite true that I have made two trips to British Columbia within the past two years and both times I have journeyed as far as Prince Rupert. On my first visit there I never heard the subject of licences to American vessels mentioned, and on my second visit the regulation was in effect and I witnessed three American vessels discharging small catches of halibut there. Therefore I think I have made it quite plain that my visits to that distant city could have no connection whatever with this question.

I do not propose to enter into any discussion as to whether it is advisable to change the Modus Vivendi in so far as the Maritime Provinces are concerned; but would suggest to Mr. Nickerson that when he again wishes to become personal, he should be sure the statements he makes are borne out by facts.

Thanking you Mr. Editor, for giving these few remarks space in your journal.

Yours sincerely,

H. B. SHORT.

Digby, N. S., November 26, 1915.

FISH
MONTREAL MARKET CONDITIONS

There has been a decided improvement in demand for fish of all kinds during the past month as usual with the Fall trade.

In salted fish, — both Green Cod and Labrador Salt Herring have been only fair supply, with market firm and prices having a tendency to advance.

In fresh fish. — The feature of our market for several weeks has been the scarcity of ground fish, especially cod and haddock. Continued storms along the Atlantic Coast seriously interfered with fishing operations, especially among the smaller crafts and shore boats, but steam trawlers have been operating regularly, although catches reported have not been up to the usual volume. In consequence, prices have been higher, but this scarcity appears to be only temporary and with better fishing weather supplies should arrive in larger volume.

In smoked fish, — there has been a very good demand for haddies and kippers, but sale of fillets is much smaller than previous years, these fish not maintaining their popularity with consumers.

Sale of bulk and Shell Oysters rather slow during the early part of the season, owing to mild weather prevailing, but it has now improved considerably and with present suitable conditions demand will be brisk until after the holidays.

VANCOUVER TRANSPORTATION FACILITIES

A correspondent calls our attention to a statement made on page 293 of the September Canadian Fisherman which says: "The transportation facilities of Vancouver at present are somewhat of a hindrance but time and experience will overcome this". In all fairness to the transportation companies, we must admit that this statement is erroneous, as there are at present three trains daily upon which fish can be transported to E astern markets from Vancouver over the Canadian Pacific Railway. There are also good services to the United States on the Great Northern System.

PLANT LINE SERVICES POOR.

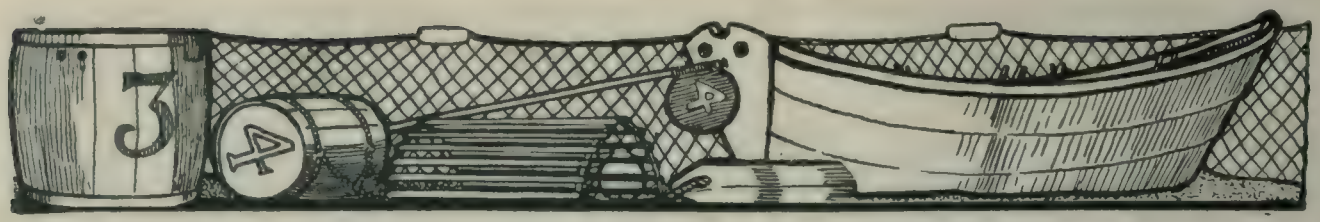
The Boston Fish Exchange recently passed a resolution condemning the services of the Plant Line between Provincial Points and Boston. Perishable products like fish were handled without care and in many cases left on the wharves, to await such time as the Company saw fit to ship the goods.

This laxity in transportation has caused indignation among Boston fish dealers who have to depend upon the Plant Line for Provincial Fish imports, and the Company's slipshod methods have occasioned severe losses to both shippers and consignees. It is to be hoped that the Plant Line will look into this matter and have it remedied.

BRITISH FOOD SUPPLIES.

400,000 Tons Less of Fish.

Lord Selborne, President of the Board of Agriculture, addressing the annual conference of the North-Eastern Agricultural Federation at Newcastle, said that with regard to live stock, while there was far more wheat in the world than we could eat, there was not more meat than we could eat. On the contrary, there was the greatest dearth. Mercifully the war found us with a greater store of cattle in this country than we ever had before. There were 400,000 tons less of fish to be had for food than in the year before the war, and nearly 100,000 tons less meat from abroad. He did not care if the veal trade was temporarily injured, because he wanted the greatest number of calves to be kept and turned into beef.



THE ATLANTIC FISHERIES

BAY SHORE OF NOVA SCOTIA.

(Special Correspondence.)

While the fishermen generally on the north Bay of Fundy shore, haul up their boats in the fall, there are a few who try to make catches all through the season. Bait is scarce, and must be obtained at St. John. The active fishermen report that there is a good run of fish on the Bay this fall, and when weather conditions are favorable, good hauls have been made. During the first of November three heavy gales swept the coastline, and old cod catchers say that nothing as heavy has visited the Bay for years.

The following items may be of interest to the "Canadian Fishermen" readers.

The breakwater at Port Lorne got the full force of the northeast gale on Saturday, November 6. The packet schooner "Maudie" that runs on the St. John route during the summer, and was tied up to winter quarters on the east side of the pier was so crushed in that she fell over and sank at the wharf side. She was owned by Captain Handley Lewis, and was not insured. The pier covering was torn asunder at high water and went adrift. The tide along the shore was higher than has been known for years. A mile of telephone poles were blown down on the road to the Nicholas mountain.

During the fierce gale on Sunday morning, some of the early risers at Hall's Cove, on the Bay Shore, espied some distance seaward, rising and falling on the crest of the waves, what appeared to be a monster submarine. It was seen to be gradually approaching the shore, and some of the fisherfolk got shaky. A little later, as there was no movement in the object, it was believed to be a monster whale. After a time there was thrown upon the shore a dead whale, that measured over eighty feet in length. When the water dropped it was cut open, and four barrels of fresh herrings were taken from the stomach. The indications were that he had not been long dead. The big fish will be cut up and its blubber tried out, which will bring a good price for the fishermen on the shore line.

The great storm of Sunday last played havoc with the breakwater at Hillsburn, on the North Shore. At twelve, midnight, and high water, a huge comber of thousands of tons of water, rolled over an eight foot break at the pier head, and tore asunder a fifteen hundred dollar warehouse containing one thousand dollars' worth of dry fish, and swept it all out to sea. The building and contents were owned by Captain Arthur Longmire, of Hillsburn. Fish houses all along the shore line suffered destruction during the night.

DIGBY, N.S.

(From our own Correspondent.)

The scarcity of fish, especially haddock, continues to perplex our producers and distributors, who have been obliged to refuse a large amount of valuable business so far this season on account of the shortage of green stock. Unfavorable fishing weather has kept most of the off-shore fleet away from home over three weeks, during which time they have averaged about one day's fishing a week. Being unable to procure full trips, they have been obliged to run in to the nearest port (usually Yarmouth) to dispose of what few fish they have been getting before the same deteriorate. The fishermen feel this scarcity, as well as the dealers, and the general public, for it is yet a question whether they are catching enough to meet their appertaining expenses.

The shore boats are having very little better fishing than the vessels. During November they have not averaged more than a couple of sets a week, and their stock in some cases hardly pays their expenses. Rough weather is chiefly the cause of this poor fishing; scarcity of bait is also held accountable; some say that fish are becoming scarcer each year but it is the writer's opinion that there would be a good catch of fish if fishing conditions were better. The latest in-shore boats are a couple of sister craft owned by Mr. F. L. Anderson. They measure 38 feet in length, 7 feet beam; are driven by 10-h.p. gas engines, and develop a speed of from nine to ten miles an hour. But the chief attraction these boats have for the fishermen lies in the fact that in the stern of each there is built a strong but light house, with snug accommodation for the crew of two men, who are enabled to have a hot cup of tea or coffee when they get a few minutes to spare between sets. Occasionally they take a chance on staying out all night, when these houses are specially appreciated.

The vessels have landed here during the past month as follows:—

	lbs.
Oct.	
27—Cora Gertie	20,864
Grace Darling	46,580
29—Lila Boutilier	93,575
30—Grace L.	16,830
Nov.	
2—Loran B. Snow	53,990
Dorothy M. Smart	98,873
3—Cora Gertie	19,774
9—Grace L.	5,645
10—Cora Gertie	19,347
15—Grace L.	25,483
22—Albert J. Lutz	53,624
23—Cora Gertie	18,174
Grace L.	20,582

The following statistics are from the Fishery Overseer's report to the Department, showing fish caught and landed in Digby County for the month of October:

	lbs.
Cod	188,430
Haddock	570,460

Hake	1,368,290
Cusk	127,930
Pollock	57,200
Herring	138,720
Dulse	11,110
Mackerel	33,800
Halibut	2,500
Skat Wings	2,400
Winkles	6,700
Mussels	1,800
Clams, barrels	60

Fish shipments originating from this port during the month of October aggregate as follows:

11,768 boxes Finnan Haddies, 1,677 tubs Dry Hake, 93,520 lbs. Dry Hake in bulk, 235 casks Dry Fish, 195 drums Dry Fish, 140 barrels Fresh Fish, 25 cases Fresh Fish, 33 barrels Mussels and Winkles, 35 barrels Clams, 13 barrels Dulse, 57 barrels Mackerel, 6 barrels Salt Cod, 5 boxes Boneless Cod, 203 bags Dry Hake Sounds.

NEWFOUNDLAND

(From our correspondent))

The codfishery on the east and north coasts is practically over, the season being in a sense fairly successful. On the southern sections of the Island fishermen fared well, but North of Bonavista Bay some of the fishermen fared rather badly. The extraordinary prices paid for "soft cure" fish helped the fishermen enormously.

Fishery operations on the east coast usually wind up at the beginning of this month, but now that there is such a demand for herring the fishermen are keeping out their gear later than usual.

The fishery on the south coast is now beginning, the harvest time for the South Coast people extends from November up to February.

They reap their gains chiefly in the prosecution of the halibut and codfishery. Halibut is readily bought up by local dealers and the demand even locally is fairly good. Of late quite a large quantity of halibut finds its way to St. John's, being shipped usually by the Coastal Company's steamer "Portia." The Reid Company's boats carry a small quantity, but the other vessels bring the fish directly to St. John's and it arrives more promptly and in a better condition than when the transhipment is made at Placentia.

The herring fishery is opening well on the West Coast and it looks as if the fishermen were going to reap a rich harvest. Higher prices are being paid this year than ever before, and it is claimed that the days of low prices for herring are passed for good and aye.

This is a consummation devoutly to be wished for, as we have never really received anything like the value of our products.

The fact is that we have been largely to blame for low prices, as some of our fishermen have not been so careful as they should have been in putting up herring. They simply followed the methods used by their grandfathers and seemed quite satisfied that they knew just what the markets outside required. They did not seem to realize the gact that the purchaser was the person whi knew just what he needed. This unfortunately been the bane of Newfoundland: we always seemed to be content with "doing as our fathers did" regardless of new demands or new conditions. In fact anybody who suggested new means of putting up fish products was regarded as a "revolutionary."

This may easily be accounted for when one considers the conditions of the old business arrangements, when the fisherman was regarded as simply a biped with very small capacity for anything except hauling fish out of the water or helping to swell the merchant's bank account annually. Within the last few years, notably since the establishment of the organization of which Mr. Coaker is the President, viz.—The Fishermen's Protective Union, things have changed materially, and the fishermen are becoming more self-assertive, and this is ust as it should be.

We believe that we shall now get busy and relegate the old 'grandfathers' day methods" in the fish business to the limbo of things that were. The "Canadian Fisherman" is helping to efect this desired change, and as the days go by it will be still more helpful. Our people are simply awaiting direct education in fishery affairs. They are full of enthusiasm, and they will rise to the occasion.

War conditions have somewhat handicapped our fishery relations with Greece which for many years has been a good customer for Labrador fish. Patras, Zante and Piraeus have been favorite markets, and during the season some good sales were made in the country which is now causing us such anxiety. We understand, however, that the exchange problem has been somewhat annoying. Of course we all know that Greece normally is not flush with money, yet our fish shippers have always managed to get satisfactory returns from the consignees. The sales are made ordinarily through London brokers, but there are some Newfoundland firms who have direct connection with the Greek commission men.

A Problem.

The problem of dealing with Labrador has now reached a stage of development when something must be done to solve it. For many years the Labrador fishery has been a very extraordinary one. This year it has been practically a failure, though the large prices paid for fish have relieved the situation somewhat.

Few people really understand the Labrador situation except those who have had close contact with it. No such situation, as far as we are aware exists elsewhere. Whilst some merchants have made a good deal of money in handling Labrador fish, others have lost heavily. Labrador business to-day is practically a gamble, and the chances are against a successful wind-up.

The crews that go down to the coast are generally "supplied" by some merchant, either at St. John's or eleswhere. There is of course a tacit agreement that the supplier gets the fish caught by the supplied crew. The merchant who supplies the crew becomes responsible for the wages of any help the crew may have: the help may be a domestic, or young boys. Usually the crew are on "shares". Should they fail to get fish enough to pay their expenses, the merchant usually has to meet demands not only of the sharemen but of their families.

Then there is another situation which is rather undesirable. The crews sometimes fail to realize the obligation existing between them and the merchant who depends upon their catch to load a vessel for a foreign market, and dispose of their fish surreptitiously to some other shipper and thus leave the merchant who supplied them "in the hole."

This of course is reprehensible; but there are often circumstances which will really exonerate the fishermen. The supplier deals them a rather bad hand by

charging them fully thirty to forty per cent more for their outfit than the current market price, and really gives them a correspondingly low amount for their fish.

If our Labrador fishery is to continue, it must be conducted on a different basis, and fisherman will have to realize their obligations and discharge them, and merchants will have to understand that they can conduct this business only on legitimate lines by giving the fishermen a square deal. Unless confidence between the supplier and the supplied is restored, this great fishery is doomed.

ST. JOHN'S, NEWFOUNDLAND.

(From Our Own Correspondent.

A statement just issued by the Deputy Minister of Newfoundland, gives the total amount of codfish shipped direct from Labrador to European markets this season as 107,149 quintals, as against 91,048 quintals shipped from the Coast last season. The first cargo that left the Coast this season was on Sept. 6, on board the S.S. Beothic, and the last cargo to be shipped was on Nov. 6, by the sailing vessel "R. J. Owens." In all, twenty-three sailing vessels and two steamships were engaged in conveying the above amount of fish to market. The largest cargo taken on any one ship was 14,370 quintals shiped by the SS. "Fagertun," and the smallest cargo that of the "Gracie," taking 3,500 quintals. In addition to the amount of fish shipped direct from the Coast, almost all the "floaters" brought their catches home to Newfoundland "to make," and at present a complete estimate of this amount is not available, but it is thought, it will not be far short of the amount shipped direct from the Coast to market, or in the neighborhood of 100,000 quintals, so that taking all into consideration, the Labrador voyage has been very much better than expected. The fish brought to Newfoundland by the "floaters" in former years was mostly all made very hard and dry or as the fishermen call it "shore cured," This year, however, the market demands were for "Soft Labrador Cure," which meant for the fish to be very heavily salted, and after being washed from the salt bulk received only one and two days' sun, when it was ready for market.

The price for this class of fish advanced all through the fall until it reached the unusual price of $6.50 per quintal. How it happens that those of the fishermen who got their fish shipped before the 9th inst. were most fortunate and lucky, because since that date a great slump has taken place in "Soft cured Labrador fish," the price fell $1.00 per quintal during the past week from $6.50 to $5.50 per quintal, and at this price very few are buying, as it is thought the price will go still lower. The cause for the decline in price has been brought about through the delicate situation of matters in Greece, which country was a large customer for "Soft cured" Labrador fish. Last year Greece bought 69,602 qtls. of Labrador fish valued at $396,432.00, and this year it was thought that the market was good for one hundred thousand quintals. But owing no doubt to that country's doubtful attitude to the Entente Allies, a Proclamation was issued by our Government, no doubt at the request of the Imperial Government, prohibiting the exporting of fish of all kinds, whether cured, salted or fresh, to any other country in Europe except France, Russia, Italy, Spain and Portugal. The enforcing of this order is a very serious matter for many of our fishermen, who still have their season's voyage on hand, and for our merchants who have bought large quantities of this fish at very high prices, very little of which has as yet reached market. As a result of this order not to send any fish to Greece, some fifteen cargoes of fish are now held at Gibraltar waiting for orders, and it is certainly one of the greatest setbacks to our trade since the beginning of the war. It is to be hoped that the embargo will not continue long, and to this effect I understand the Newfoundland Government and Board of Trade are in daily communication with the British Government on the subject. It is to be hoped that the movement, if not successful in getting the fish to Greece will for the present at least, remove the heavy tariff restrictions which prevent our fish going into France, which country is also in need of fish supplies.

Newfoundland Merchantable Fish.

Th price for Newfoundland Merchantable "'Shore dried codfish" is still holding firm at $7.50 per quintal. Several cargoes en route to the Spanish and Portuguese markets, where the demand for same is very brisk. The Brazilian market for one quintal drums, small hard dried "Shore fish" is exceedingly good. Several vessels are being loaded at different wharves in the harbour for this market, and will be rushed away as quickly as possible. The very wet weather prevailing during October and November has considerably retarded the shipping of fish to market this season, likewise causing considerable delay in the drying of late caught Newfoundland and Bank fish and some of the late catches of "floaters" in Labrador. It is not unlikely that a large amount of this late caught fish will remain in salt bulk all the winter to be made next spring and find its way to market early next summer with the winter and very early spring catches of our Banking Fleet.

Early Winter Codfishery.

Scarcely before the summer fishery is over preparations are being made for the winter fishery on the S. W. Coast of Newfoundland—operations will begin several weeks earlier than in former years; and a start will be made about the New Year. Squid in a frozen state will be imported from Gloucester, Mass., and it is not unlikely there will also be a good supply of frozen herring. The outfitting for the winter fishery is much larger than formerly, as a result no doubt of the high prices prevailing, and the fishermen look forward to a successful season. It is to be hoped their efforts and labours will be crowned with success, because "of all men that go down to the sea in ships" none undergo greater hardships, amid ice, sleet, frost and snow made still more hazardous by Arctic storm, than those brave Newfoundland fishermen who prosecute the winter fishery off the S. W. Coast of Newfoundland.

Cod Oil.

The price of common Cod-oil still continues to advance. The price from fishermen to merchant is $140.00 per tun, which is the highest figure given for ten years, and the end is not yet in sight. To-day reports are current that as high as $150.00 per tun will be paid before the end of the present month. There appears to be an abnormal demand for this class of oil in the United States, and it is current news, that all of the Norwegian stock of oil was bought up early in the season by the Germans, which practically means that Newfoundland oil has an unlimited market. Re-

fined oil remains steady at $1.30 per gallon; of this quality there is very little offering for sale.

Herring Fishery.

The opening of the herring fishery last month looked very bright with good prices and a few good catches, but to date expectations have not been realized for a big catch. Up to the present large catches have not been made as in other years, and apparently the very stormy weather has had something to do in preventing the fish from coming into shallower waters in the different Arms and Bays. Fishermen think that with western winds and more frost in the air, the herring will swarm to land, and it is not too late yet for a good voyage; up to the present some twenty-five American and Canadian schooners have arrived at Bay of Islands and Bonne Bay, and have commenced operations, some with a fair measure of success. In addition to this fleet of schooners which will be increased later on, there are several Newfoundland schooners in the business this season, and several Scotch packers have taken up the work on shore and those have been augmented again by several Newfoundland traders and merchants who have gone into the trade, all with the one idea in view of putting up a superior brand, following as closely as possible the Scotch Cure, even to excel if possible. All of the spring and summer catch of herring has been shipped to market, so that there is practically no herring in St. John's at present. The price of that grade of fish—split herring is $3.00 to $3.50 per brl., but there is none offering for sale.

In the first time in the history of the country a shipload of salt herring, containing over three thousand barrels was sent to France last week—it is to be hoped the venture will prove successful, and may be the means of opening up a new market to our fishermen.

Lobsters.

Very few sales are being made, the fishermen with few exceptions have made local sales to the merchants who are now marketing the season's catch in the United States and England. The local price is $13.50 per case—with very little demand.

Pickled Salmon.

There is a remarkable scarcity of this fish in our markets, little or none offering for sale. The price is $16.00 per tierce, a price not exceeded in many years. Quite a large shipment of pickled trout came forward from the Moravian Mission, Labrador, this fall. The fish was very well put up in barrels and puncheons, and being auctioned for sale, met ready buyers and good prices.

YARMOUTH, N.S.

(From Our Own Correspondent.)

November, as usual, has been disappointing. Gale after gale keeps the fishermen dodging from one port to another, and their opportunities to make a "set" are very scarce. There is a little larger fleet than formerly fishing out of here, that is, of outside vessels. Of the local fleet itself, only one, Harry A. Amiro's "Francis A." is still in commission, and we heard it remarked in Mr. Amiro's office just the other day that it would be better if she were tied at the wharf instead of knocking around, doing practically nothing. There have been a few good days, and a few good fares have been landed. Just as I am writing this there are in port nine schooners with fares totalling 68,000 pounds—secured in one day's fishing. Prices are ruling exceptionally low for fresh fish, however, to-day's quotations being: Haddock, 3 cents; medium cod, $1.75; steak cod, $3.00, and shack, $1.00.

Dry fish are being held at the highest price on record. Comparatively little is produced here—although after all, the figure would be a respectable one if it was obtainable—but a large quantity is brought from outside sources for the American market. One Yarmouth buyer has been in Lunenburg lately and has secured 20,000 quintals at $7.00. At that rate dry salt fish will soon figure with quail on toast, and other expensive items on the menu in the big hotels, and the customer rash enough to order a fish ball will be reckoned in the millionaire class.

The bait problem is a serious one just now. Practically none can be obtained in the country, and the frozen herring in cold storage is so high that the shippers are fighting shy of it now, realizing that they will probably have to come to it a little later on. They are getting a quantity of small salt herring from New Brunswick.

The agitation for the repeal of the modus vivendi which was taken up by the various Boards of Trade earlier in the year, seems to have died a natural death. Boards of Trade are great bodies for "resoluting," but they seem to fight shy of their projects after a few "whereases," and "therefores" have been considered, and voted upon. Moses H. Nickerson, than whom the fishermen have no greater champion in Canada, still tries to keep a little life in the agitation, but one man can do little with a body like the Government. In the course of a recent letter in favor of the repeal, and speaking of conditions, particularly in Yarmouth and Shelburne counties, he says:—

"Last month, however, gave a practical demonstration along the coast of three counties. Takes of herring, by trap and net, were being made at a dozen places, and numbers of the New England fleet took the occasion to bait up. Clark's Harbour was especially fortunate in this respect. The herring came early and stayed late. Traps and nets did a rushing business. One drag seine sold 100 barrels to the baiters for several mornings in succession. Six vessels in the harbour at a time were buying provisions at the stores. How many auxiliary craft were prevented from coming to swell the traffic, your readers may conjecture, when it is remembered that over half of the fleet is so fitted. Can you imagine a more mischievous piece of stupidity?

"There was something doing also at Shelburne and Lockeport. When the slack-down came, those places were unwilling to report a plentiful run elsewhere, lest the vessels would go away. Altogether, about $15,000 were left at Clark's Harbour for bait and supplies. The Shelburne paper announced that American vessels were beginning to tranship their fares by rail from Shelburne to Boston by way of Yarmouth. Only the holders of modus vivendi licenses can do that, and no motor craft can purchase a license. This forwarding of fares would be the greatest thing imaginable for Shelburne and Yarmouth, to say nothing of the Halifax and Southwestern, Mr. Mooney has been reminded time and again of the paying possibilities on this end of his road, but he seems oblivious. Once we opened those channels of lawful trade, the train-earnings would warrant the running of a daily freight to connect with boats at Yarmouth, instead of letting the goods congest,

as they recently did, while there were four weekly boats to Boston and only two train connections. Let this business work up to its full capacity, and it is more than likely the Boston and Yarmouth transportation service would be extended to meet requirements, by an extra weekly trip later in the fall and earlier in the spring, if not all winter. Consider what a saving such extension would be effected in the lobster exports. But of course, it is incumbent on the people of those localities to work up their resources, then the transport companies will put their shoulders to the wheel."

In the Joseph McGill shipyard in Shelburne is being built a power fishing schooner for a local syndicate, and one or two other Yarmouth vessels are being rebuilt in readiness for next season's work.

Our fishermen generally are a class who behave themselves. Here and there is an exception, and there was an evidence of wrong-doing at the Bar recently when the body of an infant but a few hours old was found on the doorstep of one of the houses in that village. The child had been born alive, and afterwards suffocated. No trace of the guilty parties has been found.

Preparations for the lobster fishing are going on apace. With the opening but a few weeks away there is great activity all along the shore. If the truth were known, a lot of traps are already out, in fact, a Government patrol boat found some recently and destroyed them. The lobster smack "Wanda" has been rebuilt this summer, and will be ready for the opening of the season, practically a new vessel.

Following were the exports for the month:—

Dry Codfish, casks, 756, drums, 570; fresh mackerel, barrels, 482; fresh halibut, cases, 63; smelts, boxes, 117; fresh fish, cases, 282; eels, barrels, 10; clams, barrels, 9; boneless fish, boxes, 4,098; Cod oil, barrels, 78; pickled fish, cases, 392; finnan haddies, boxes, 101; salt mackerel, barrels, 66; salt herring, barrels, 1,815; tongues, barrels, 18; bloaters, boxes, 5; scallops, barrels, 1; hake, sounds, bags, 128; salt fish, casks, 100; salt fish, drums, 686; fish waste, barrels, 172; fish waste, bags, 435; periwinkles, barrels, 3; fish scraps, barrels, 22; Albacore, cases, 3.

To New York (for re-shipment)—378 tubs dry fish; 37 casks cod fish.

To Brazil—685 tubs dry fish; 253 drums dry fish; 678 drums salt hake.

To Porto Rico—75 casks cod fish.

To Philadelphia (for re-shipment)—201 barrels salt mackerel.

BEGINNING A NEW FISHERY.

The auxiliary fishing schooner Stranger, in the service of the U. S. Bureau of Fisheries, landed its first fare of about 8,000 pounds of tilefish at Fulton Market, New York City, on October 21. This large, attractive appearing and excellent food fish, which soon after its discovery in 1877, was supposed to have been exterminated by a submarine cataclysm, is now abundant near the 100-fathom line, within easy sailing distance of New York and Boston. To introduce a new sea food into the market and give employment to a small fleet of fishing vessels ordinarily idle during the fall and winter, the bureau is conducting a campaign to acquaint both the consumer and the fisherman with the merits of the tilefish, and to this end it has prepared a circular giving a popular account of the fish and recipes for cooking it, and a large display card recommending it as a food.

A Minesota man has patented a process for freezing fish in boxes lined with oiled paper so that they can be shipped by mail.

THE CODFISH LEADS DRIED FISH IN CHILE

It is not possible to determine what proportion, but codfish is more generally sold than any other variety in Chile. Received in tin boxes of 11, 22, 25, and 51 lbs., packed in light wooden cases sufficiently reinforced to prevent breakage. Packed without having the spine removed are received in strong tin-lined boxes of 101 lbs. each.

MANY SALMON EGGS TAKEN

New Westminster, B.C. — A total of twenty-two million salmon eggs so far have been collected by the Dominion Fisheries Department at their Pemberton Meadows hatchery and one million more are expected before the season closes. This is an exceptionally good record, considering the scarcity of fish in the river this year. All the eggs are from Fraser River salmon and wil be hatched at the Pemberton hatchery for distribution in the Fraser River later.

WHALE MEAT GOOD FOR FOOD

Seattle, Nov. 11. — The manager of a large whaling station at Akutan, Alaska, who has just returned from his season's work, reports that his company took 307 whales, yielding 15,400 tons of fresh meat, excellent in flavor and highly nutritious. An effort is being made to place whale meat on the market as a table food, whalers insisting that this flesh is equal to any eaten by man, but not used ashore because of lack of intelligence. In the old whaling methods all the meat was thrown away. In present methods it is used in the manufacture of fertilizer.

THE SINS OF THE SEA LION.

Out in British Columbia they are saying things about the sea lion. Some of the remarks are condemnatory, while others regard the amphibian as being a much maligned creature. Mr. D. N. McIntyre, Deputy Commissioner of Fisheries of British Columbia, was unfortunately quoted in an article on the Fishing Industry in British Columbia, in the November issue, as being an upholder of the sea lion's right to live, under the heading of "Sea Lion as a Maligned Creature." This paragraph owing to the vagaries of printers, slipped in to Mr. McIntyre's article and should not have been included, as the genial Deputy for British Columbia has no love for the sea lion, nor any desire to take a stand as its champion. The said printers' defalcation had the effect of making it appear as if the paragraph in question was written by Mr. McIntyre, but this however is not the case and we are taking this opportunity of disassociating Mr. McIntyre from the onus of making such a statement. Mr. W. Hamar Greenwood, B.A. Secretary of the Sea Lion Commission, also complains that a number of weird statements regarding the sea lion have been attributed to him. The Canadian Fisherman hopes to publish in the near future, a bona fide sea lion article under Mr. Greenwood's signature and set the matter at rest for all time.

THE PACIFIC FISHERIES

(Special Correspondence.)

VANCOUVER VERSUS PRINCE RUPERT.

A Vancouver Correspondent Compares the Two Ports and their Importance in the Fishing Industry.

We have been accustomed to hear of Prince Rupert as the coming "Grimsby" of Western Canada, and that city has been heralded as a great metropolis, its greatness being founded entirely upon the fish business. The claims have been made so often, and have been carried to such an extravagant length, that an impression has been created in the mind of the general public that the other cities of the Pacific Coast, viz: Seattle and Vancouver, have ceased to handle any fish at all except, perhaps, for local use. This, however, is far from being the case. While Prince Rupert, in view of its closer proximity to the Alaskan halibut fishing banks, is handling a considerable volume of fish which previously went to Seattle and Vancouver, the production of halibut has itself increased on the Pacific Coast, and Vancouver and Seattle still continue to handle large volumes. According to the most reliable statistics available, the total quantities of halibut landed at Pacific Coast ports during the past four months were as follows:

	Total quantity landed.	Total landed at Prince Rupert.
May,	1915, 7,400,000 lbs.	1,120,000 lbs.
June,	1915, 6,300,000 lbs.	1,600,000 lbs.
July,	1915, 5,250,000 lbs.	1,800,000 lbs.
August,	1915, 5,600,000 lbs.	1,800,000 lbs.

The figures for the month of September are not yet available, but will show a much smaller proportion of the total month's tonnage as having been landed at Prince Rupert.

Another fact to which attention is called is that Prince Rupert takes credit in her Civic Fisheries returns for all the salmon which were packed in cans on the Naas, Skeena and Stikeen Rivers, although practically the entire salmon pack of the Northern district was shipped to Vancouver for distribution. In other words, Prince Rupert has taken credit for all the salmon which were handled in the Northern Fisheries District of British Columbia, whereas very little of this salmon passed through the city of Prince Rupert.

One of the principal arguments advanced by the boosters of Prince Rupert is that that city is located much nearer to the fishing grounds than is Vancouver or Seattle, and that fish can therefore be landed at Prince Rupert in a much fresher state than the same fish can be landed at either of the Southern ports. This statement is correct so far as it applies to the waters immediately adjacent to Dixon Entrance and to Alaska, but when the fishing banks of Southern Hecate Straits, the West Coast of Vancouver Island, the West Coast of Queen Charlotte Islands, and the Oregon Coast are considered, the advantage of nearness lies with the Southern ports, and not with Prince Rupert. The Oregon halibut banks in 1915 produced over six-million pounds of halibut during the two spring months in which the fish were on the banks. The grounds in Southern Hecate Straits also produced very large quantities of fish during the spring and early summer, as they have done for years past.

Now, in the matter of transportation, it is well known that transportation companies will provide just as much accommodation as the business which is offered to them, warrants. Prince Rupert to-day is served by the Grand Trunk Pacific Railway, and by three steamship companies. The Grand Trunk Pacific provides three trains per week, carrying both freight and passenger traffic. The business hitherto offering has not been sufficient to warrant any heavier train service than this. The Grand Trunk Pacific S. S. Company operate two boats weekly between Prince Rupert and the South. The Canadian Pacific Railway Company's Steamships operate once per week, and the Union S. S. Company about once every ten days. Comparing this with Vancouver: Vancouver has fourteen Trans-Continental trains per week over the Canadian Pacific, as well as four local trains daily. The Great Northern Railway Company run three trains daily from Vancouver to Seattle, connecting with Trans-Continental trains from Seattle. In addition to this, Vancouver has water communications by fast steamers with Seattle, Tacoma, Victoria and San Francisco. The Canadian Northern Railway Company is this month starting three trains per week from Vancouver East, so that in the matter of railway and water communication, Vancouver is very well looked after. Seattle's communication by rail and water with other ports is even better than Vancouver's, as it is served by four Trans-Continental lines, and by many steamship companies.

The advantage which Prince Rupert claims as a result of being nearer to certain of the halibut fishing banks is offset in a large measure by the fact that it is not as near by rail to the principal distributing centres of Canada as the city of Vancouver. The following figures, obtained from the official time table of the Grand Trunk Pacific Railway Company and the Canadian Pacific Railway Company, speak for themselves:

	Distance.	Approximate time.
Vancouver to Calgary, Alta...	649 miles	30 hours
Prince Rupert to Calgary....	1195 "	55 "
Vancouver to Edmonton, Alta.	842 "	40 "
Prince Rupert to Edmonton..	953 "	44½"

Vancouver to Moose Jaw, Sask.	1087	46
Prince Rupert to Moose Jaw	1610	72½
Vancouver to Regina, Sask.	1129	50
Prince Rupert to Regina	1566	68½
Vancouver to Saskatoon, Sask.	1127	60
Prince Rupert to Saskatoon	1279	55
Vancouver to Brandon, Man.	1353	57½
Prince Rupert to Brandon	1683	81
Vancouver to Winnipeg, Man.	1486	61½
Prince Rupert to Winnipeg	1746	74½
Vancouver to Port Arthur	1910	75
Prince Rupert to Port Arthur	2198	90½
Vancouver to Chicago	2187	69
Prince Rupert to Chicago	2676	100
Vancouver to Toronto	2716	97
Prince Rupert to Toronto	3002	119
Vancouver to Montreal	2895	105
Prince Rupert to Montreal	3170	128
Vancouver to Boston	3234	118
Prince Rupert to Boston	3470	136
Vancouver to New York City	3280	117
Prince Rupert to New York City	3449	135

From this it will be seen that with the exception of Saskatoon, Vancouver holds quite an advantage, as regards running time, over Prince Rupert.

The express service out of Vancouver and Seattle for handling fresh fish has been perfected after many years of experience, and the arrangements for delivering the fish to the express companies, loading it on specially provided express refrigerator cars, re-icing and care of the fish en route, and the many other details connected with the proper transportation of perishable food, are the best which have been evolved to the present time.

Those who boost Prince Rupert as a coming "Grimsby" overlook the fact that Grimsby serves a population of over forty millions, a population which has been trained to using fish seven days per week, and using it in preference to meat, as compared with Canada's population of seven millions, eating fish once a week on an average, and preferring meat to fish on almost all occasions. Before Prince Rupert can become a large city supported by its fishing industry, it must have behind it a population as large as the population which is served by Grimsby, and a population which has been trained to the use of fish as a regular article of diet, and which has been compelled by financial necessity to use fish in preference to higher priced articles of food.

PACIFIC NOTES.

The steamer "'Kingsway" has been purchased by The Canadian Fishing Company, Limited, from the Liquidator of the Standard Fisheries, Limited. This transaction practically closed out the venture which was started by Alvo von Alvensleben to exploit fishing in British Columbia. The company started business originally in 1909 purchasing the steamer "Kingsway" and erecting a fertilizer plant on Queen Charlotte Island. After sinking a large sum of money into a fish fertilizer plant and a cold storage plant at Pacofi, Queen Charlotte Island, their money ran out and they were forced to re-organize. Some time afterwards a second re-organization was effected, but notwithstanding all the new money which was put into the concern it finally passed into the hands of the liquidator about 18 months ago, and the "Kingsway" was the last available asset which could be turned into money.

The Canadian Fishing Company, Limited, states that it is their intention to entirely re-fit the boat. Their plans include the building of a forecastle head, new fisherme nquarters forward and aft, new galley, oil burning equipment, and remodelling of the fish hold. The steamer "Kingsway" was built in England in 1906. She is 126 ft. long, 22 ft. beam, 12 ft. molded depth. Her gross tonnage is 242 tons.

The steamer "Minnesota" belonging to the Great Northern Railway Co. has recently left Seattle with a full cargo for the United Kingdom. Her entire cold storage space was engaged by Vancouver and Prince Rupert fish producers who shipped about 200,000 lbs of frozen halibut and salmon to the English market.

The salmon carrier "Nahmint" belonging to the Wallace Fisheries, Limited, broke her crank shaft and sustained other damage while going from Vancouver to Toba Inlet for a load of salmon. The tug "Defiance" was sent to her assistance.

The schooner "Borealis" belonging to Atlin Fisheries, Limited, has been laid up at Prince Rupert for the winter and will not operate again until the early spring.

CANADIAN HALIBUT ARRIVALS AT PRINCE RUPERT, B.C., OCTOBER 15 TO NOVEMBER 15 INCLUSIVE.

Date.	Vessel.	Delivered to.	Weight.
Oct.			
17	Andrew Kelly	The Canadian Fish & Cold Storage Co., Ltd.	8,000
19	Margalice	Atlin Fisheries, Ltd.	5,000
21	Celestial Empire	Atlin Fisheries, Ltd.	15,000
	W. R. Lord	The Canadian Fish & Cold Storage Co., Ltd.	5,000
22	Grier Starrett	The Canadian Fish & Cold Storage Co., Ltd.	16,000
28	Jas. Carruthers	The Canadian Fish & Cold Storage Co., Ltd.	110,000
29	Borealis	Atlin Fisheries, Limited	9,000
Nov.			
1	Chief Skugaid	The Canadian Fish & Cold Storage Co., Ltd.	35,000
2	Wireless	The Canadian Fish & Cold Storage Co., Ltd.	10,000
3	Geo. E. Foster	The Canadian Fish & Cold Storage Co., Ltd.	140,000
4	W. R. Lord	The Canadian Fish & Cold Storage Co., Ltd.	5,000
6	Chief Zibassa	The Canadian Fish & Cold Storage Co., Ltd.	5,000
8	Magnolia	The Canadian Fish & Cold Storage Co., Ltd.	8,000
12	Alliance I.	The Canadian Fish & Cold Storage Co., Ltd.	5,000
15	Chief Skugaid	The Canadian Fish & Cold Storage Co., Ltd.	20,000
	B. B.	Rorvik Fish Company	8,000

AMERICAN HALIBUT ARRIVALS AT PRINCE RUPERT, B.C., OCTOBER 16 TO NOVEMBER 15, INCLUSIVE.

Date.	Vessel.	Weight. lbs.
Oct.		
16	Helgelund	30,000

Malola	15,000
17—Washington	10,000
18—Polaris	25,000
20—Tordenskjold	34,000
Corona	8,000
21—Sumner	27,000
22—Athena	14,000
24—Constance	70,000
25—Alameda	7,000
27—Vansee	25,000
Aurora	3,000
28—Yakutat	5,000
Corliss	6,000
Sitka	5,000
29—Progress	135,000
Nov.	
1—Omaney	60,000
Pioneer	60,000
3—Seymour	60,000
New England	95,000
Seattle	85,000
4—Thelma	10,000
Tyee	40,000
5—Liberty	16,000
Lister	10,000
6—Murigen	15,000
San Jose	32,004
8—Polaris	10,000
Alten	72,000
Albatross	45,000
9—Presho	7,000
Alvilda	7,000
11—Athena	12,000
12—Atlantic	9,000
Constance	75,000
13—Vansee	65,000
14—North Cape	2,000
Corliss	6,000
15—Senator	25,000

HALIBUT ARRIVALS AT VANCOUVER, B. C., OCTOBER 16 TO NOVEMBER 15, INCLUSIVE.

Date.	Vessel.	Delivered to.	Weight.
Oct.			
27—	Manhattan—	New England Fish Co.	230,000
Nov.			
4—	Emma H.—	The Canadian Fishing Company, Limited	10,000
	Pescawha—	The Canadian Fishing Company, Limited	10,000
	Carlotta G. Cox—	The Canadian Fishing Company, Limited	10,000
5—	Celestial Empire—	The Canadian Fishing Company, Limited	10,000
8—	Flamingo—	The Canadian Fishing Company, Limited	15,000
6—	Northland—	New England Fish Co.	200,000

HALIBUT ARRIVALS AT STEVESTON, B. C., OCTOBER 16 TO NOVEMBER 15, INCLUSIVE.

Date.	Vessel.	Delivered to.	Weight.
Oct.			
20—	Roman—	Columbia Cold Storage Co.	17,000
25—	Onward Ho.—	Columbia Cold Storage Company	120,000

HALIBUT ARRIVALS AT KETCHIKAN, ALASKA, OCTOBER 16 to NOVEMBER 15, INCLUSIVE.

Date.	Vessel.	Delivered to.	Weight.
Nov.			
5—	New England—	New England Fish Co.	120,000
4—	Knickerbocker—	New England Fish Co.	100,000
12—	Prospector—	New England Fish Co.	25,000
	Miscellaneous—	New England Fish Co.	10,000

Halibut Investigation in Pacific Waters

The first systematic attempt to trace the life-history of the halibut was inaugurated in the Department when W. F. Thompson was assigned to this work. Fragmentary notes had been made on the halibut by European scientists in studying other fishes, but Mr. Thompson found the field a virgin one and started actively the collection of specimens on a scale never before attempted. The impossibility of dealing with a subject of this scope in the short summer months was recognized by the Department, and Mr. Thompson was detailed to give his entire time to the problem. A progress report was given by Mr. Thompson as follows:—

"The importance of the halibut as a food-fish and the imminent danger that the supply may become seriously diminished, if not exhausted, on both our coasts has aroused special interest in its present abundance and distribution and in all the facts of its life-history. Fishermen and dealers are aware that the best known halibuts banks are becoming seriously depleted by overfishing. Their catches are each season brought from more distant banks, and it has become alarmingly evident that the supply is limited and is rapidly decreasing. It is beyond question that, if this important source of food is not to be largely lost to the public, some protection must be extended to the species in the near future. To effect this rationally and without undue disturbance to the industry complete knowledge of the life-history of the halibut must be obtained.

"In consideration of these facts, the Fisheries Department of the Province of British Columbia has decided to prosecute an inquiry into the growth-history, food, seasonal history, period of fertility, the development, and all other phases necessary to an understanding of the life of the halibut. To this field the writer has been assigned during the present season, and has made numerous trips with the fishing fleet to the banks of British Columbia and Alaska. So little is known of the halibut, based on adequate data, that it seems advisable to place here on record certain of the facts recently ascertained, pending a more detailed report to be presented later.

"(1). In determining the age of the halibut, the writer has made use of the otoliths, as has been done with such signal success with the European plaice. Such minor uncertainty as still attaches to the interpretation of various parts of the halibut otolith will not seriously affect the truth of the comparison of male and female growth here given. One hundred and fifty specimens were utilized in the series, from which the sixty of the following table were selected:—

Year of Life.	Sex.	Body-length Caudal Base (Average.) Inches.	Number of Specimens
VIII.	Male	31.1	11
VIII.	Female	36.1	24
XII.	Male	37.1	6

XII.	Female	42.0	6
XIV and XV	Male	40.2	5
XIV and XV	Female	52.6	5
XIX	Female	65.0	3

It will be noted that the females grow more rapidly and attain a larger size than do the males. These results corroborate general beliefs which have been entertained on scanty evidence. It has long been thought that halibut reach an age of about twenty years (Joyce, in Alexander, Preliminary Examination of Halibut Fishing Grounds of the Pacific Coast, Bureau of Fisheries, Document No. 763), and the differing sizes of males and females has been known, in a similar way, to halibut fisherman of the Atlantic (see G. Brown Goode, Fisheries and Fishing Industries of the United States, Sec. 1, 1884, page 189.)

"This inference in rate of growth and final size of males and females, which it is the sole purpose of the above table to indicate, has been corroborated in the following ways:—

"(a.) Tables which have been compiled with data from 2,000 specimens show the longest male which was examined to have been 47 inches in body-length and the next longest 46, while the two longest females were 69 and 65 inches respectively.

"(b. The graphic curves constructed for each catch show the male curve ceasing in a normal way between lengths of 40 and 44, but that of the females at about 60 inches.

"(c.) The average length of the males in any catch is constantly less than that of the females, as instanced in one catch of 150 specimens taken near Huxley Island, Queen Charlotte Group:—

Sizes.	Number of Specimens.	Average Length. Inches.
Males	71	34.8
Females	79	38.3

"This difference is not strictly the same as that of the age-lengths, for the lower limit of size in this case is determined by the size of hook used, whereby a larger percentage of the smaller females is captured than of the smaller males. This is, incidentally, the reverse of what is usually considered good practice in fish-conservation. It may also be suggested here that a size-limit of 42 inches (body-length) would allow the escape of a large number of mature females, with the loss of but few males.

"(2) The fact that one or the other of the sexes may predominate in a given place at a given time is one of the most noticeable features of the halibut banks. It will suffice to give three representative instances: A catch from which fifty were taken in sequence as brought over the side of the vessel, off Yakutat, Alaska, June 28th, 1914, showed forty-eight females to two males, respectively, 96 and 4 per cent. This was rendered more striking by the fact that the two males were taken on contiguous hooks and were only 27 inches in length, as compared with an average of 40.1 inches for the females. On August 12th, 1914, in 80 to 90 fathoms, near Kodiak, Alaska, ninety-four specimens gave 32 per cent females and 68 per cent males. On September 4th, 1914, in 90 fathoms, off Middleton Island, Alaska, the proportion was 88 per cent females and 12 per cent males. This proportion was sometimes found to vary widely on successive days.

"(3.) As the halibut boats which the writer accompanied visited banks along both the British Columbian and Alaskan coasts, opportunity was afforded to compare fish from widely separated districts. It became at once apparent that differences existed. Such differences were observed in the relative size of the parts of the fish and in other respects. Thus, as is shown in the following table, the length of the head in Alaskan material is proportionately greater than in that of British Columbia. The head-lengths are given in terms of hundredths of the body-length.

Middleton Island.		Kodiak Island.	Queen Charlotte
No. of Specimens.	Head length.	No. of Specimens.	Head length.
Male		80	29.33
74	29.39	85	26.8
Female		107	29.07
143	29.16	146	26.89

"Kodiak Island is in longitude 153 degree W. on the west side of the Gulf of Alaska, and Middleton farther east in longitude 146 degree 15'.

"South differences may indicate the presence of local races, or they may be due to the direct modifying effect of climatical or other environmental factors. In this connection averages from two intermediate localities are given below, although the number of specimens involved is much too small. They are Dry Bay in longitude 138 degree 25' W., and Cape Ommaney in longitude 134 degree 45' W.

Sex.	Dry Bay.		Cape Ommaney.	
	No. of Specimens.	Head length.	No. of Specimens.	Head length.
Males	7	28.92	2	27.75
Females	28	28.22	12	27.89

"Arranged in geographical sequence the averages from all localities are as follows, taking females only: 29.07, 29.16, 28.2, 29.7, and 26.9. The progression shown is in striking correlation with the latitude and merits further investigation. As the data show the same results when arranged in even smaller groups of sizes, the probability is that they will hold true, most certainly in the first table given.

"The difference in length of head is supplemented by a similar difference in the caudal length and in other ways. One of the most striking of these is the fact that Alaskan specimens mature at a much smaller size, beginning at about 29 or 30 inches body-length, while I have yet to find a specimen from the Queen Charlottes maturing under a length of 35 inches. This is evident at a glance to one who has his attention called to it while handling fresh fish. Further data dealing with this, together with counts of fin-rays and other details, will be given in a later report.

"(4.) The food of the halibut is well known to exhibit great variety, but the data recently collected indicate that it differs widely on different banks and may be quite limited in any given locality. The range of food has been found to include crabs, sea-anemones, starfish, sand-lance (Ammodytes personatus), dogfish (Squalus sucklii), ratfish (Chimoera (Hydrolagus) colliei), Cyclogasterids (of undetermined species), the arrow-toothed halibut (Atherestes stomias), octopi, grey cod (Gadus Macrocephalus), salmon (Oncorhynchus kisutch), and even occasional red cod (Sebastodes). It is here deserving of remark that the crabs and the grey cod formed the vast bulk of the food on many banks, while on at least one the halibut used mainly the sand-lance. The crabs and sand-lance were eaten by halibut of small size generally in shallower line. Thus, in 90 fathoms of Middleton Island, of 130 stomachs 59 per cent were empty, 39 per cent. had grey cod, 2 per cent had crabs and the arrow-toothed halibut."

PACIFIC ITEMS.

The schooner "Tuladi" has been equipped with a power gurdy and is now operating as a long line fisherman.

The steamer "Manhattan," belonging to New England Fish Company, of Vancouver, was equipped with a steam gurdy and the necessary fishing equipment to operate as a long liner. She will operate out of Vancouver with both long lines and dories, during the winter.

The schooner "Alliance" No. 1, which was recently purchased by Mr. McCaffrey, of Prince Rupert, is now owned by G. W. Nickerson & Co. She has been overhauled and equipped as a halibut fisherman and is being operated by Capt. W. E. Kenney.

Mr. C. H. Earle, of the Maritime Fish Corporation, visited Vancouver in the early part of November.

Mr. H. C. Nunan, manager of Atlin Fisheries, Limited, Prince Rupert, is visiting Vancouver.

The steamer "Northland" brought 250,000 lbs. of frozen halibut and salmon from Ketchikan, Alaska, to Vancouver, B.C., for the New England Fish Company.

The Grand Trunk Pacific Steamship Co. are now operating two boats weekly between Vancouver, Prince Rupert and Seattle instead of three boats weekly, as was the case during the summer. The lessened travel during the winter is responsible for this change in schedule.

There has been considerable trouble during the past month between the Fisheries Inspector on the Fraser River and the salmon fishermen. It has been customary in years past for the fishermen to use nets with a 5¾ in. mesh. The law has permitted these 5¾ in. mesh nets to be used until Oct. 1, after which time the fishermen were supposed to use a 7 in. mesh. Until 1915 this law has been a dead letter, but on Oct. 1 of this year the Fisheries inspectors attempted to enforce the law compelling fishermen to use nets with a mesh 7 in. or larger. Owing to the fact that every fisherman on the Fraser River possessed 5¾ in. mesh nets and would not buy any new ones, there was considerable conflict between the fishermen and the inspectors, and the Fisheries Department found it impossible to enforce the law, owing to the fact that it would take one inspector for each fisherman. The Fisheries Department, therefore, got after the salmon pick-up boats and seized several salmon pick-up boats, which contained salmon caught in nets having smaller than 7 in. mesh. and the fish in these boats were sold by the Fisheries Department as confiscated goods.. The effect of this action was to scare the fishermen, and quite a number of them quit fishing, not even wanting to fish with a 7 in. mesh for fear of coming into conflict with the Department. This matter has never been taken to court and many of the fishermen consider that the Department is just trying to bluff them into observing the regulations, and they believe that if the matter were taken to court the Department would not be able to enforce this particular regulation.

The Cohoe salmon season in British Columbia closed November 15. The actual date of closing had very little effect, however, for the reason that there has been a tremendous scarcity of Cohoe salmon for over a month past. The run of Cohoes on the Fraser was very small right through the 1915 season, and the great scarcity of fish has caused prices to go higher than ever before on the Fraser River. The competition between the canneries has been added to by the invasion of the Fraser River district by American salmon buyers.

FISH FOR EVERY SEASON.

Economy in Purchasing Secured Through Use of Seasonable Varieties.

"When to buy fish" is a time that most housewives neglect to mark on their calendars. The fact that most varieties of fish can only be obtained at reasonable prices during certain seasons is not sufficiently recognized. No one thinks of buying oyster in June or strawberries in December, and yet fish dealers frequently have enquiries for fresh fish which are quite out of season at the time the enquiry is made, and which, if obtainable at all, demand an almost prohibitive price. Thus, for example, during June, 1915, one of the largest retail fish dealers in Eastern Canada was retailing the very choicest cuts of fresh Gaspe salmon at 15 to 20 cents a pound. For a short time. about a month earlier, the price of this fish was 75 a pound.

In view of the steady rise in the cost of foodstuffs, this is a circumstance that should not be overlooked. Fish is one of the most nutritious of foods, and, if purchased intelligently, would prove to be one of the cheapest. There are certain varieties of fresh fish, such as hake, pollock, skate, etc., which can be procured at certain seasons at extremely low prices, but which in at least some large inland centres find practically no sale. To remedy this, it is first of all necessary to break down what appears to be a sort of traditional prejudice against the use of such fish. But many housewives are very hazy as to the seasons in which the several varieties of edible fish can be obtained most cheaply. These will vary somewhat with different seasons, so that only approximations can be arrived at. However, through the courtesy of the fish dealer already referred to, the following approximations for Central Canada are presented. These may easily be verified or corrected as circumstances and conditions may require:

Fresh sea fish.	When to buy most economically.
Halibut	May to September.
Haddock	May to September.
Cod	May to September.
Herrings	July and August.
Gaspe Salmon	June to middle of August.
Mackerel	June to September.
Flounders	July to October.
Soles	August to December.
Finnan Haddie	October to March.
Kippered Herrings	September to November.
Lake Superior whitefish	May to August.
Lake Erie whitefish	Middle of October to middle of November.
Lake herrings	October and November.

Salmon trout	July to October.
Sturgeon (local)	June to middle of July.
Pickerel (local)	July to October.
Pike	July to October.

During the winter months, from about December to March, frozen fish reach inland markets in splendid condition, and practically every variety that the law allows fishermen to catch during those months can be obtained.

Increasing the consumption of fish is undoubtedly one way of lowering the cost of living while at the same time assisting to build up one of Canada's great national industries.—A. D.

Eight steam trawlers are tied up in Boston without crews. The men wanted to knock off at 5 p.m. while in port, and when their demands were refused, a strike was called.

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Dry and Pickled Fish, Lobsters, Cod Oil, etc.
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HALIFAX, Nova Scotia.

NEW YORK MARKET FOR CANNED FISH.

The Canning Trade for November 29, says:—

Sardines.—A somewhat firmer market was reported on domestic sardines, and while demand is not active, there is no pressure to sell by the principal factors. Reports from Maine points make it certain that from now to the end of the season there is likely to be little addition to the supply. The tone is very firm on French and Portuguese stock and prices show an upward tendency. In Norwegian fish there is little stock to supply the trade. A higher tendency is noted on all domestic sardines. The carry-over is about 50 per cent of the total available a year ago. The demand is running on keyless quarter-oils and key oils in plain cans. The principal interests have advanced quarter-oil sardines to $2.35 f. o. b. Eastport. This is an advance of 15c a case from last quoted price. Advances have also been made an quarter-mustards and three-quarter key mustards. Outside factors have offered at 5c a case less, but there has been no disposition to sell in any quarter. Many people here are of the opinion that the carry-over is not large enough to supply the wants of consumption until the 1916 pack is ready. The total carry-over is given as less than 350,000 cases of all grades. The general trend of the market is toward a higher level.

Some Eastport sardine packers have advanced prices to $2.30 a case on keyless quarter-oils and some expect $2.50 by the begunning of 1915. The total carry-over in packers' hands is estimated at not over 350.000 cases.

Imported sardines are difficult to obtain. Norwegian and Portuguese fish have gone up $2.00 to $3.00 a case in the last month and will go still higher. A few lorts are coming from Norway, but they have been sold. Jobbers have not advanced prices on the cheaper grades, and retailers can still sell at 5c a can. All finer grades are higher.

Salmon.—Salmon is in fair demand only. Red Alaska talls are hard to find under $1.60 in a jobbing way. Pinks are firm at 82½c, and medium red is hard to find under $1.25. Columbia River and sockeye are firm. There is a firmer market on the Coast in all grades, with prices unchanged as quoted.

Heavy purchases of salmon have been made for export account, the heaviest ever known. No more important lots of red Alaska salmon are available in first hands, and the whole quantity does not exceed 350.000 cases. No medium red can be bought. No sockeye, either flats or tails, can be found in first hands. This condition is without precedent in the salmon industry.

Lobster.—There is a fair call for the finer sorts. In some cases the market is higher. No change in price is reported in No. 1 tals, which are offered at $4 60, and No. 1 flats the same on the spot. No. 12 flats are still available for $2.75.

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